

Service Manual

74 CC38/02B
CC-38U_{BL}
CC-48F_{B,U}_{BL}

Compact disc player

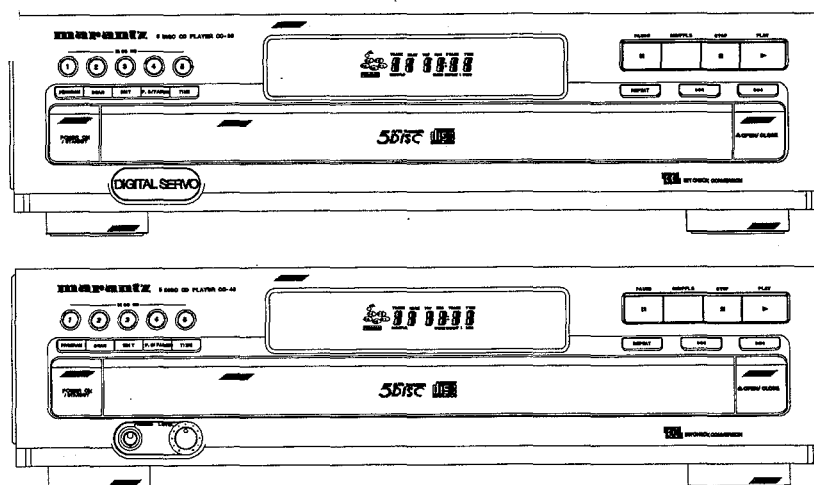


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修理の際は、必ず取扱説明書を準備し操作方法を確認の上作業を行ってください。

Please use this service manual with referring to the user guide (D.F.U) without fail.

marantz®

model CC-38/CC-48

MARANTZ DESIGN AND SERVICE

Using superior design and selected high grade components, **MARANTZ** company has created the ultimate in stereo sound. Only original **MARANTZ** parts can insure that your **MARANTZ** product will continue to perform to the specifications for which it is famous.

Parts for your **MARANTZ** equipment are generally available to our National Marantz Subsidiary or Agent.

ORDERING PARTS :

Parts can be ordered either by mail or by Fax.. In both cases, the correct part number has to be specified.

The following information must be supplied to eliminate delays in processing your order :

1. Complete address
2. Complete part numbers and quantities required
3. Description of parts
4. Model number for which part is required
5. Way of shipment
6. Signature : any order form or Fax. must be signed, otherwise such part order will be considered as null and void.

- USA -

MARANTZ AMERICA, INC.
440 MEDINAH ROAD
ROSELLE, ILLINOIS 60172- 2330
USA
PHONE : 630 - 307 - 3100
FAX : 630 - 307 - 2687

- CANADA -

LENBROOK INDUSTRIES LIMITED
633 GRANITE COURT,
PICKERING, ONTARIO L1W 3K1
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PHONE : 416-831-6333
FAX : 416-831-6936

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MARANTZ PROFESSIONAL PRODUCTS
1000 CORPORATE BLVD., SUITE D
AURORA, ILLINOIS 60504 USA
PHONE : 630 - 820 - 4800
FAX : 630 - 820 - 8103

- PROFESSIONAL CANADA -

TC ELECTRONICS CANADA LTD
540 FIRING AVE.
BAIE D'URFÉ, QUEBEC H9X 3T2
CANADA
PHONE : 514 - 457 - 4044
FAX : 514 - 457 - 5524

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FAX : +55 11 534. 8988

- THAILAND -

MRZ STANDARD CO., LTD.
746 - 750 WANGBURAPA BANGKOK
10200 THAILAND
PHONE : +66 2222 9181
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- HONG KONG -

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88 QUEEN'S ROAD, CENTRAL, H. K.
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29, LENG KEE ROAD
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FAX : +65 475 - 8623

SHOCK, FIRE HAZARD SERVICE TEST :

CAUTION : After servicing this appliance and prior to returning to customer, measure the resistance between either primary AC cord connector pins (with unit NOT connected to AC mains and its Power switch ON), and the face or Front Panel of product and controls and chassis bottom.

Any resistance measurement less than 1 Megohms should cause unit to be repaired or corrected before AC power is applied, and verified before it is return to the user/customer.

Ref. UL Standard N0. 1492.

In case of difficulties, do not hesitate to contact the Technical
Department at above mentioned address.

TECHNICAL SPECIFICATIONS

General

1. Mains voltage	/02B	: 220-230V (+11 -10%)
	U _{BL}	: 120V
	F _{BL}	: 100V
2. Mains frequency		: 50-60 Hz
3. Mains voltage selection		: see circuit diagram power supply
4. Power consumption mains, operated		: 9W

Line output

1. Number of channels	: 2
2. Output voltage	: 2 V _{rms} ± 3 dB
3. Unbalance left-right	: max. 1,0 dB
4. Output resistance	: 1 kΩ
5. Amplitude linearity	: max. ± 0.6 dB from 20 Hz to 20 kHz
6. Phase non-linearity	: ± 7.0° from 20 Hz to 16 kHz
7. Out-band attenuation	: min 35 dB above 40 kHz
8. Signal to noise ratio	: min. 90 dB from 20 Hz to 20 kHz
9. Dynamic range (-60 dB)	: min. 85 dB from 20 Hz to 20 kHz
10. Total harmonic distortion + noise	: min. 75 dB from 20 Hz to 20 kHz
11. Channel separation	: min. 82 dB from 20 Hz to 20 kHz
12. Automatic switched deemphasis with time constant 15/50 μs	

Variable headphone (CC-48 only)

1. Output voltage	: max. 5 V _{rms} ± 2dB
2. Unbalance left-right	: max. ± 1.2dB
3. Output resistance	: 120 Ω
4. Load impedance range	: 32 Ω to 600 Ω load
5. Output power	: 0 to 30 mW into 32 Ω load
	: 0 to 50 mW into 120 Ω load
	: 0 to 30 mW into 600 Ω load

Audio specs with 20 kHz/13th order Cauer filter

6. Signal to noise ratio(1 kHz)	: min. 90 dB(digital silence detection)
7. Dynamic range	: min. 70 dB (20 Hz -20 kHz)
8. Total harmonic distortion	: min. 60 dB (19 Hz - 20 kHz)
9. Channel separation	: min. 70 dB (1 kHz)(digital silence detection)
	: min. 65 dB (20 Hz - 20 kHz)(dig. sil. det.)

Dimensions and weight

1. Apparatus tray closed	: WxDxH 435 x 300 x 90/106 mm
2. Apparatus tray open	: WxDxH 435 x 500 x 90/106 mm
3. Weight	: 7 kg

Optical read-out system

1. Laser type	: Semiconductor AlGaAs
2. Wavelength	: 780 nm ± 20 nm
3. Light output (c.w.)	: max. 0.5 mW

NOTE ON SAFETY :

Symbol  Fire or electrical shock hazard. Only original parts should be used to replaced any part marked with symbol  . Any other component substitution (other than original type), may increase risk of fire or electrical shock hazard.

安全上の注意 :

 がついている部品は、安全上重要な部品です。必ず指定されている部品番号の部品を使用して下さい。

GB WARNING

All ICs and many other semi-conductors are susceptible to electrostatic discharges (ESD). Careless handling during repair can reduce life drastically.

When repairing, make sure that you are connected with the same potential as the mass of the set via a wrist wrap with resistance. Keep components and tools also at this potential.

ESD**NL WAARSCHUWING**

Alle IC's en vele andere halfgeleiders zijn gevoelig voor electrostatische ontladingen (ESD).

Onzorgvuldig behandelen tijdens reparatie kan de levensduur drastisch doen verminderen. Zorg ervoor dat u tijdens reparatie via een polsband met weerstand verbonden bent met hetzelfde potentiaal als de massa van het apparaat.

Houd componenten en hulpmiddelen ook op ditzelfde potentiaal.

F ATTENTION

Tous les IC et beaucoup d'autres semi-conducteurs sont sensibles aux décharges statiques (ESD).

Leur longévité pourrait être considérablement écourtée par le fait qu'aucune précaution n'est prise à leur manipulation.

Lors de réparations, s'assurer de bien être relié au même potentiel que la masse de l'appareil et enfilez le bracelet muni d'une résistance de sécurité.

Veiller à ce que les composants ainsi que les outils que l'on utilise soient également à ce potentiel.

D WARNUNG

Alle ICs und viele andere Halbleiter sind empfindlich gegen elektrostatische Entladungen (ESD).

Unvorsichtige Behandlung bei der Reparatur kann die Lebensdauer drastisch vermindern. Sorgen Sie dafür, dass Sie im Reparaturfall über ein Pulsarmband mit Widerstand mit dem Massepotential des Gerätes verbunden sind. Halten Sie Bauteile und Hilfsmittel ebenfalls auf diesem Potential.

I AVVERTIMENTO

Tutti IC e parecchi semi-conduttori sono sensibili alle scariche statiche (ESD).

La loro longevità potrebbe essere fortemente ridotta in caso di non osservazione della più grande cauzione alla loro manipolazione. Durante le riparazioni occorre quindi essere collegato allo stesso potenziale che quello della massa dell'apparecchio tramite un braccialetto a resistenza.

Assicurarsi che i componenti e anche gli utensili con quali si lavora siano anche a questo potenziale.

GB

Safety regulations require that the set be restored to its original condition and that parts which are identical with those specified be used.

NL

Veiligheidsbepalingen vereisen, dat het apparaat in zijn oorspronkelijke toestand wordt teruggebracht en dat onderdelen, identiek aan de gespecificeerde worden toegepast.

D

Bei jeder Reparatur sind die geltenden Sicherheitsvorschriften zu beachten. Der Originalzustand des Geräts darf nicht verändert werden für Reparaturen sind Original-Ersatzteile zu verwenden.

I

Le norme di sicurezza esigono che l'apparecchio venga rimesso nelle condizioni originali e che siano utilizzati pezzi di ricambio identici a quelli specificati.

F

Les normes de sécurité exigent que l'appareil soit remis à l'état d'origine et que soient utilisées les pièces de rechange identiques à celles spécifiées.

**CAUTION****VARO!****VARNING****ADVERSEL****DANGER****VORSICHT**

INVISIBLE LASER RADIATION WHEN OPEN AVOID EXPOSURE TO BEAM

AVATTAESSA OLET ALTTIINA NÄKYMÄTTÖMÄLLE LASER SÄTEILYLLE ÄLÄ KATSO SÄTEESIN

OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD BETRakta EJ STRÅLEN

USYNLIG LASERSTRÅLING VED ÅBNING. UNDGÅ UNSAETTELSE FOR STRÅLING

INVISIBLE LASER RADIATION WHEN OPEN AVOID DIRECT EXPOSURE TO BEAM

UNSICHTBARE LASERSTRAHLUNG WENN ABDECKUNG GEÖFFNET NICHT DEM STRAHL AUSSETZEN

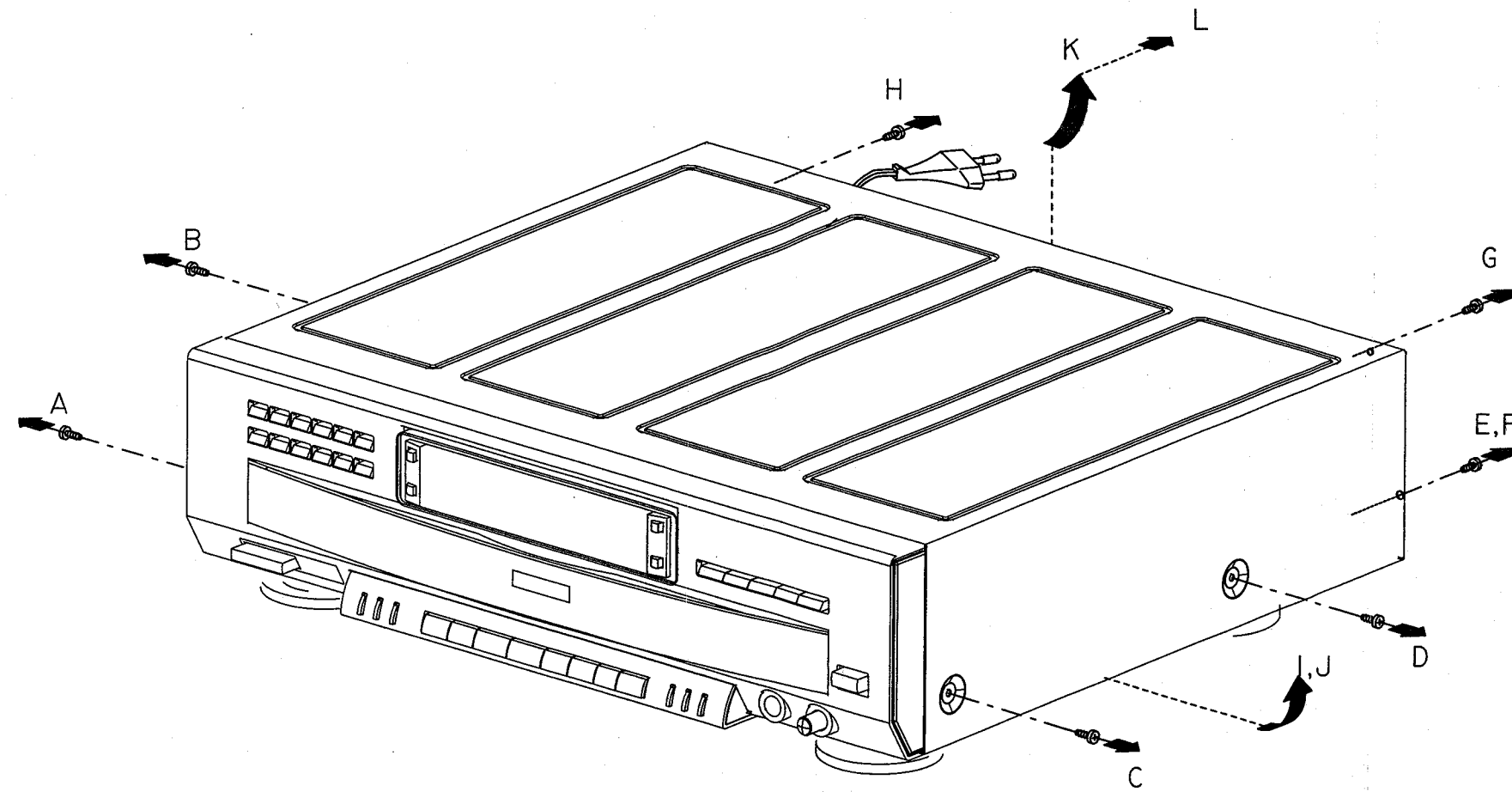
**CLASS 1
LASER PRODUCT**

3122 110 03420

DISMANTLING INSTRUCTIONS
DEMOUNTING OF COVER

5

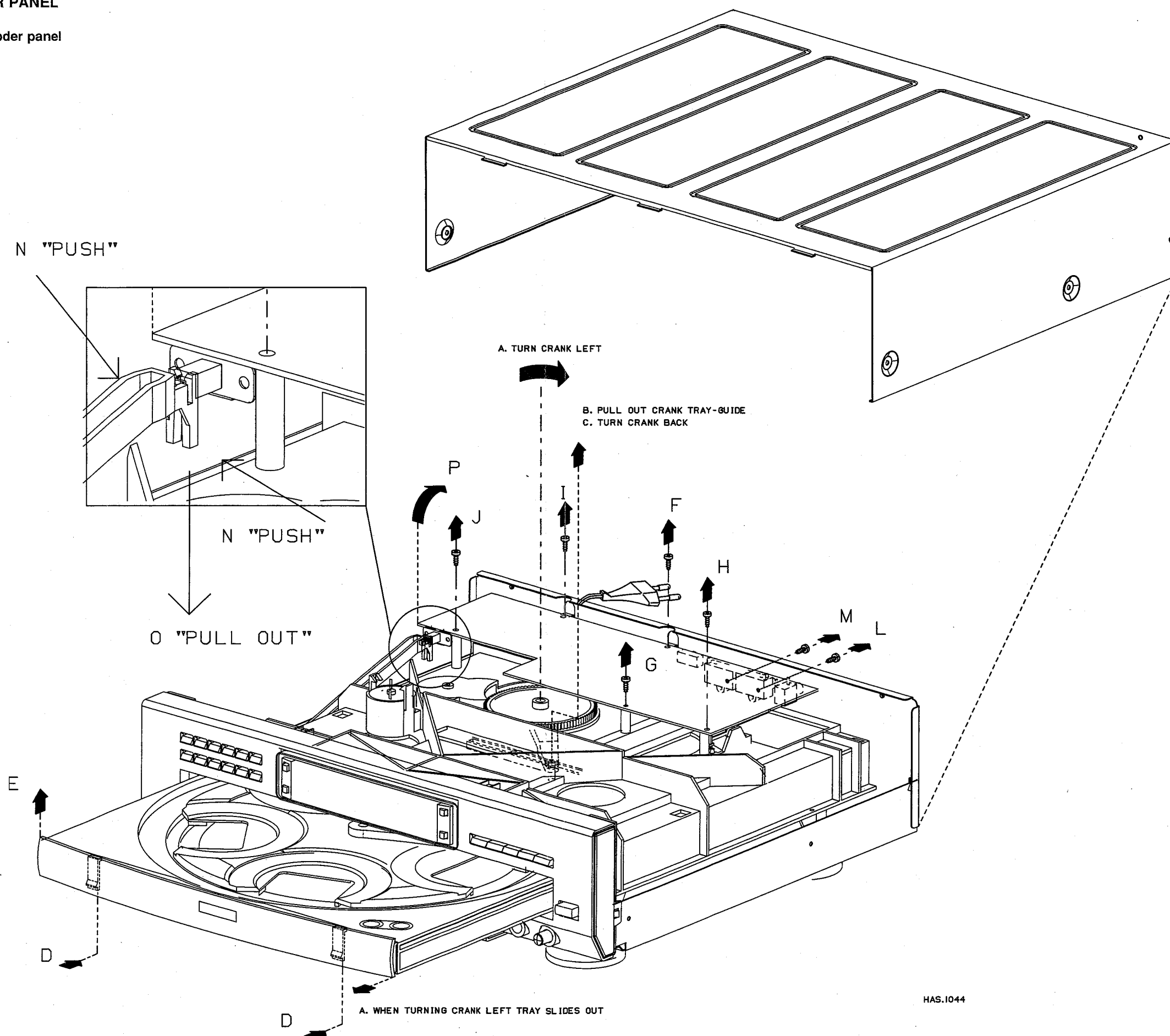
5



HAS.1043

**PULL OUT OF TRAY
DEMOUNTING OF TRAYFRONT
DEMOUNTING OF DECODER PANEL**

NOTE: Before demounting decoder panel
remove backplate.



HAS.1044

7

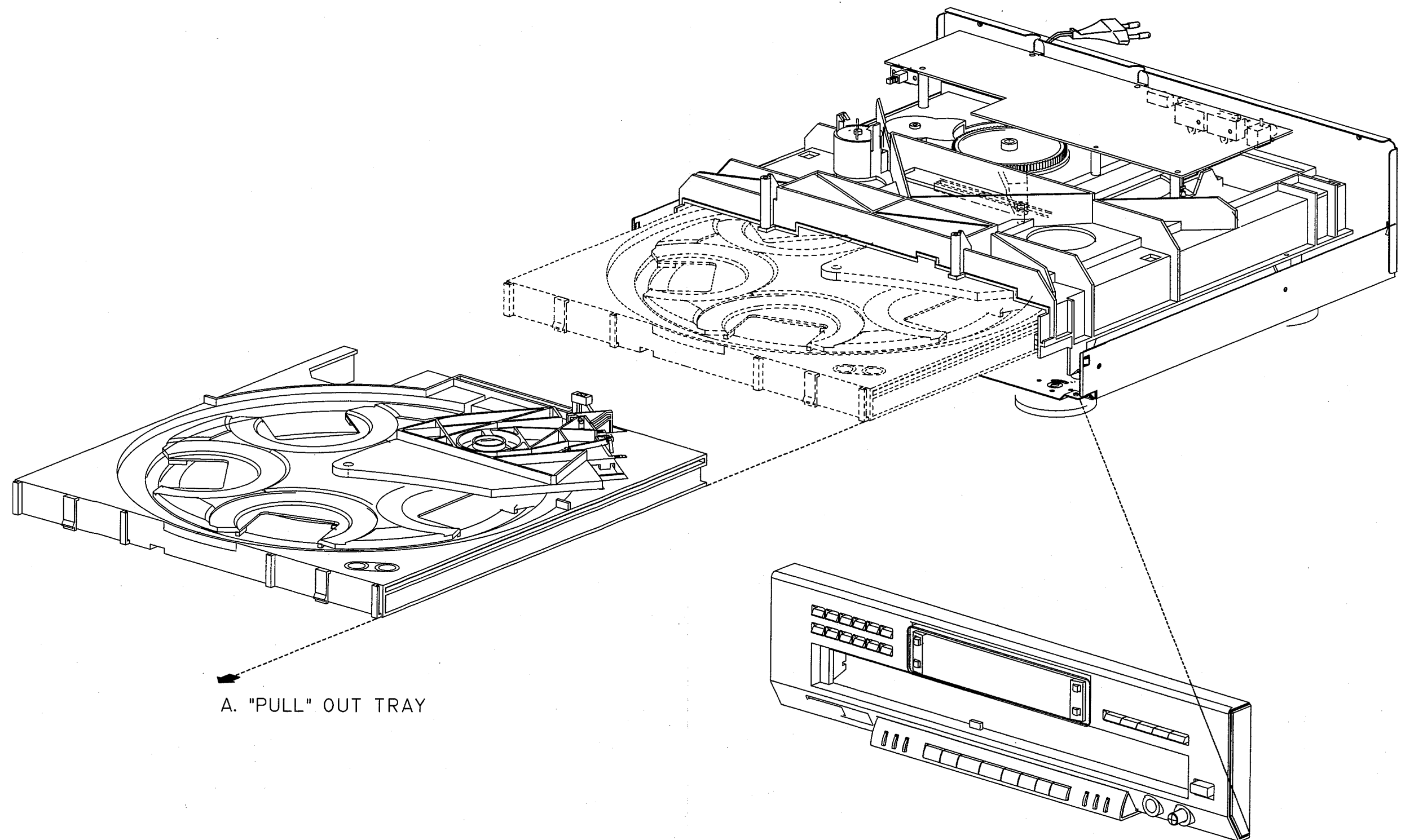
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PULL OUT OF TRAY

8

8

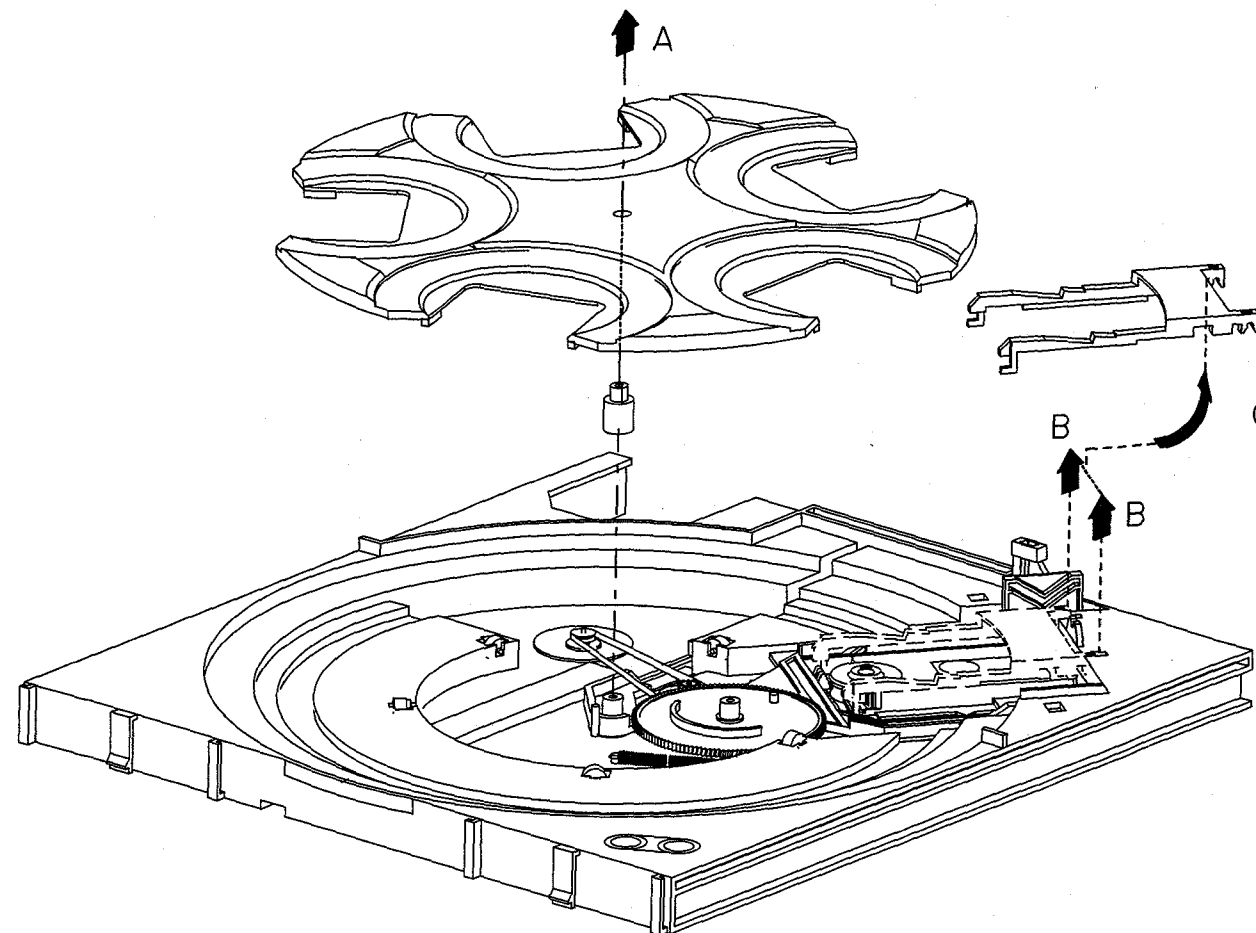
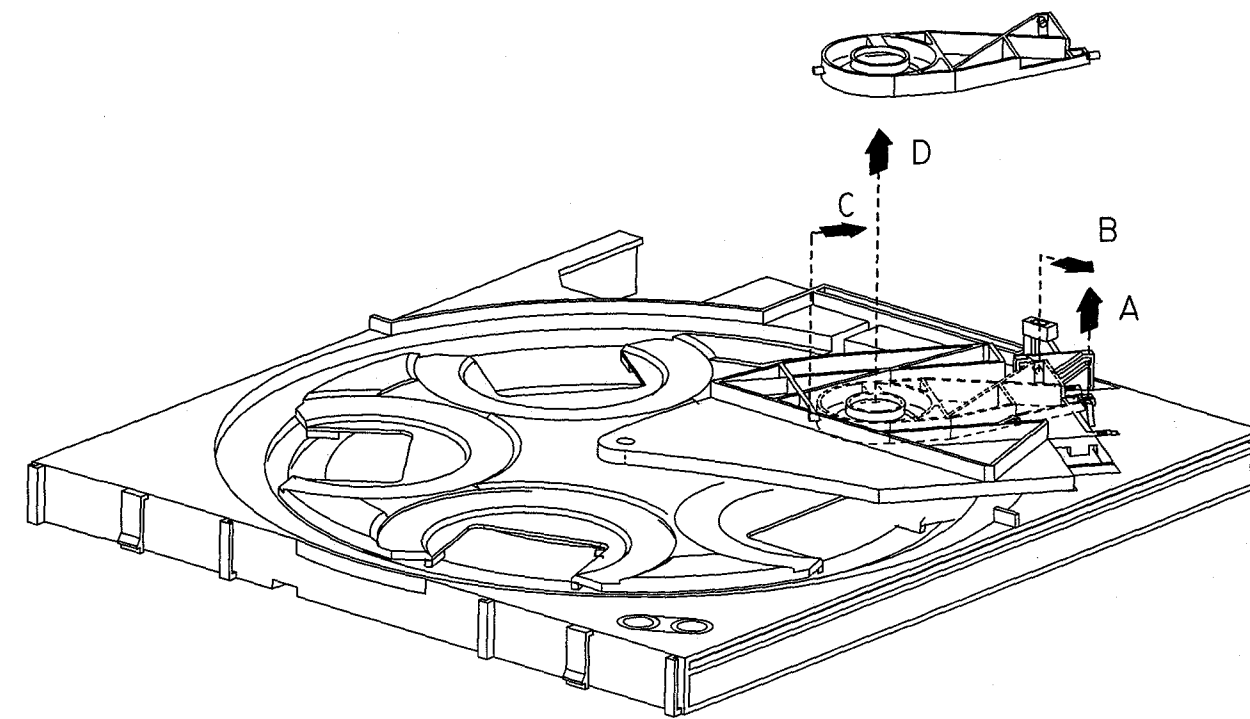


A. "PULL" OUT TRAY

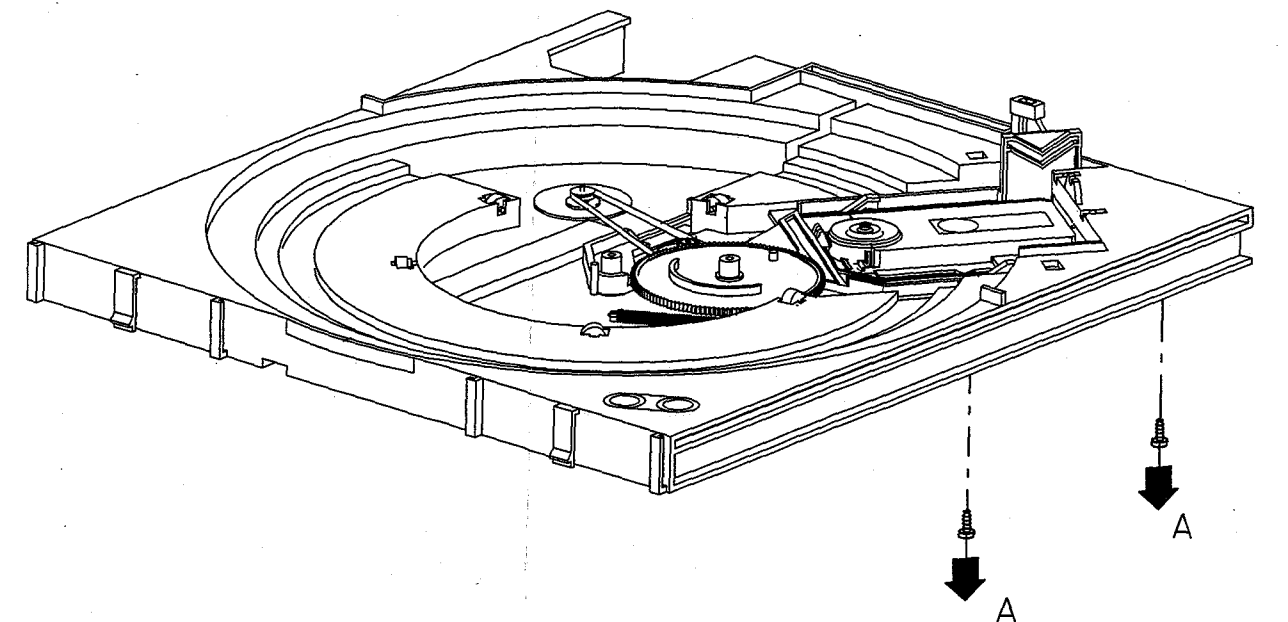
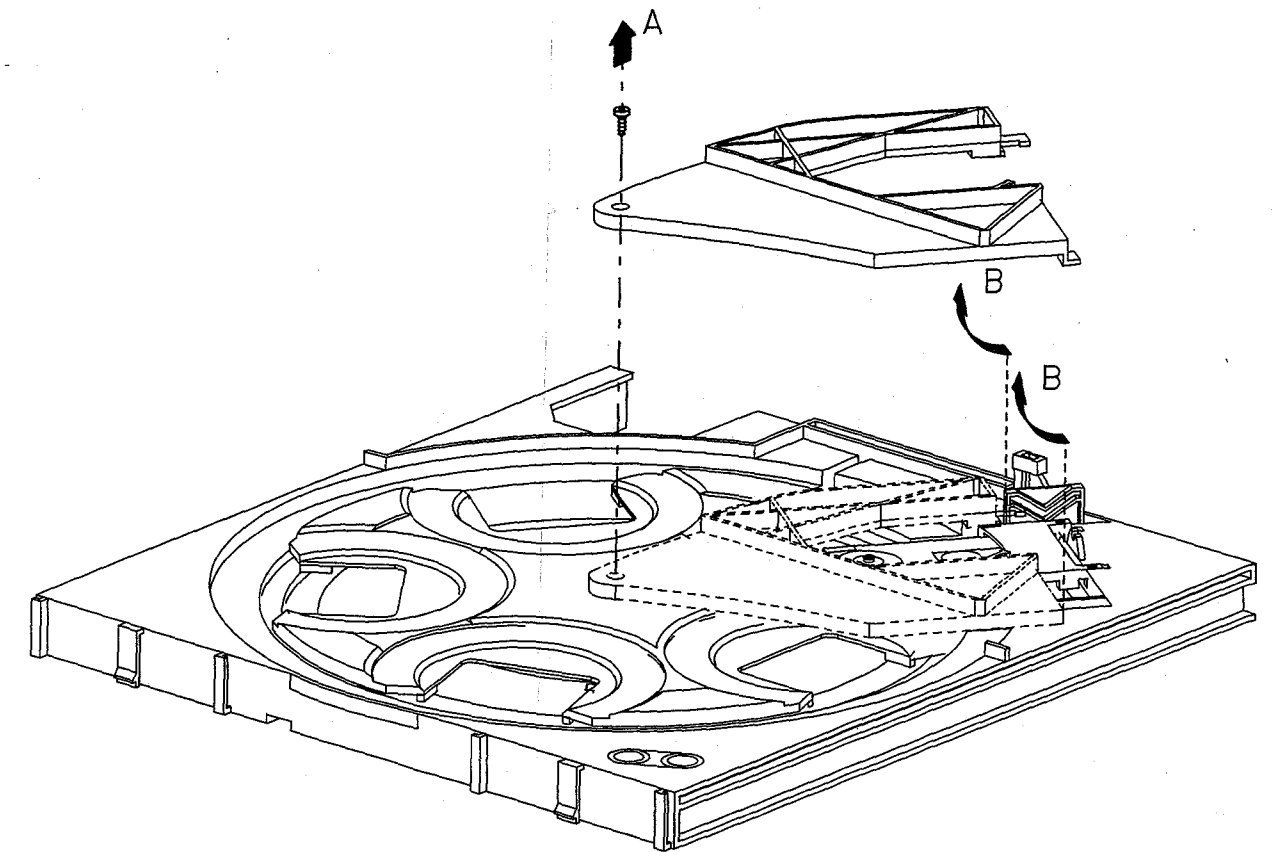
HAS.1046

DEMOUNTING OF CARROUSEL
DEMOUNTING OF CDM

9

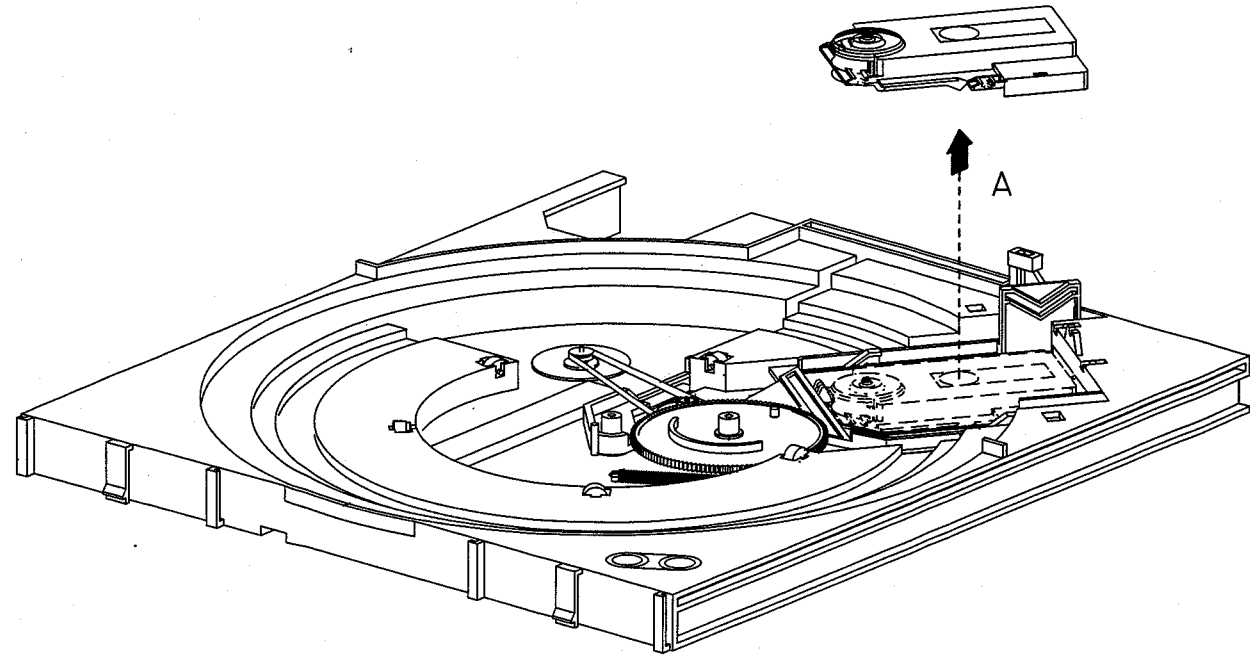
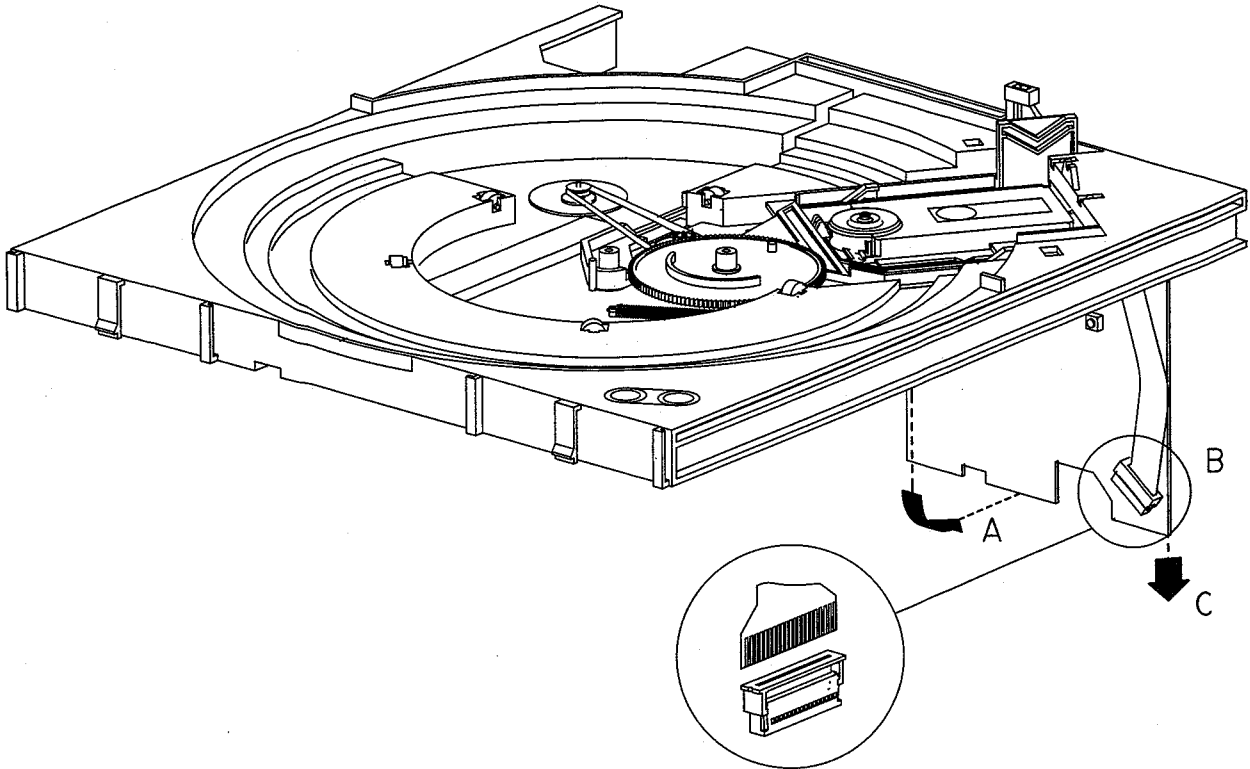


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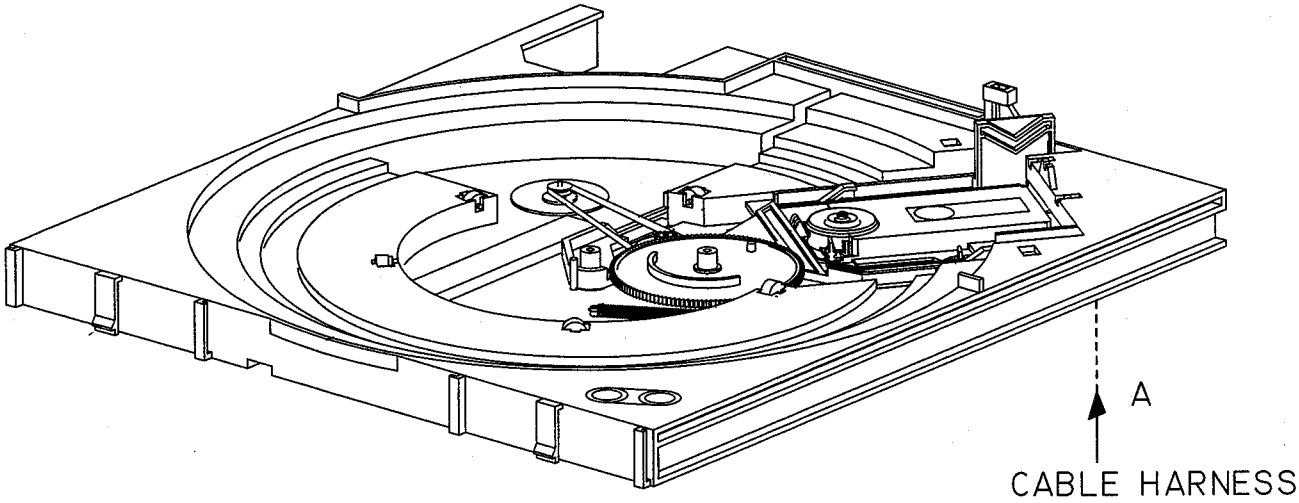


DEMOUNTING OF CDM

10

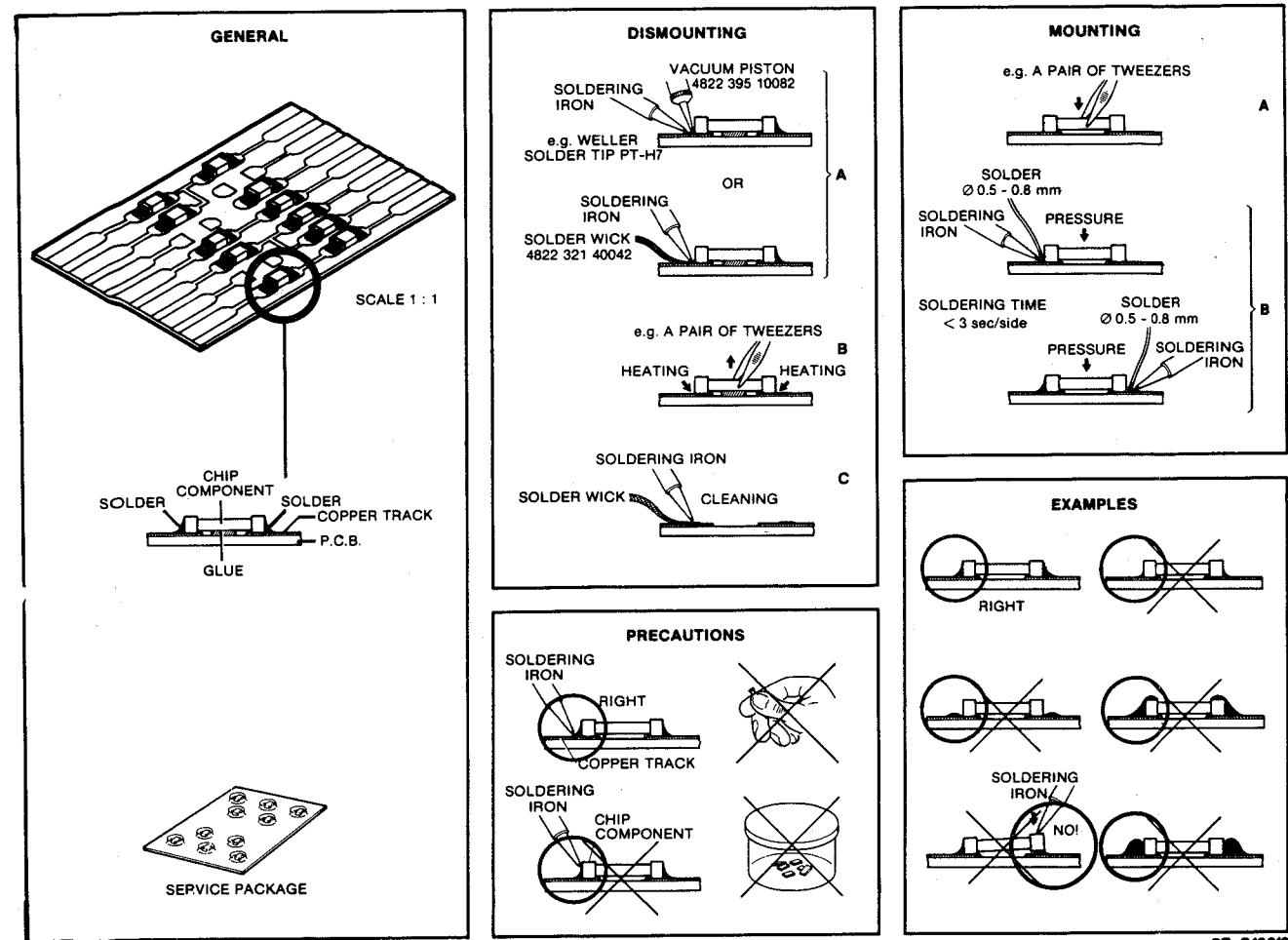


10



SERVICING HINTS

In the set chip components have been applied. For disassembly and assembly of chip components see the figure below.



SERVICE HINT ABOUT PHOTOTRANSISTOR 7701

The disc detection does not work when the decoder panel is demounted and when external light falls on the phototransistor.

This can be prevented by covering the transistor with a piece of paper or a cloth.

SERVICE TOOLS

Audio signal disc
Disc without errors (test disc 5) +
disc with DO errors,
black spots and fingerprints (test
disc 5A)
Disc (65 min 1kHz) without pause
Max. diameter disc (58.0 mm)
Torx screwdrivers
Set (straight)
Set (square)
13th order filter

4822 397 30184

4822 397 30096

4822 397 30155

4822 397 60141

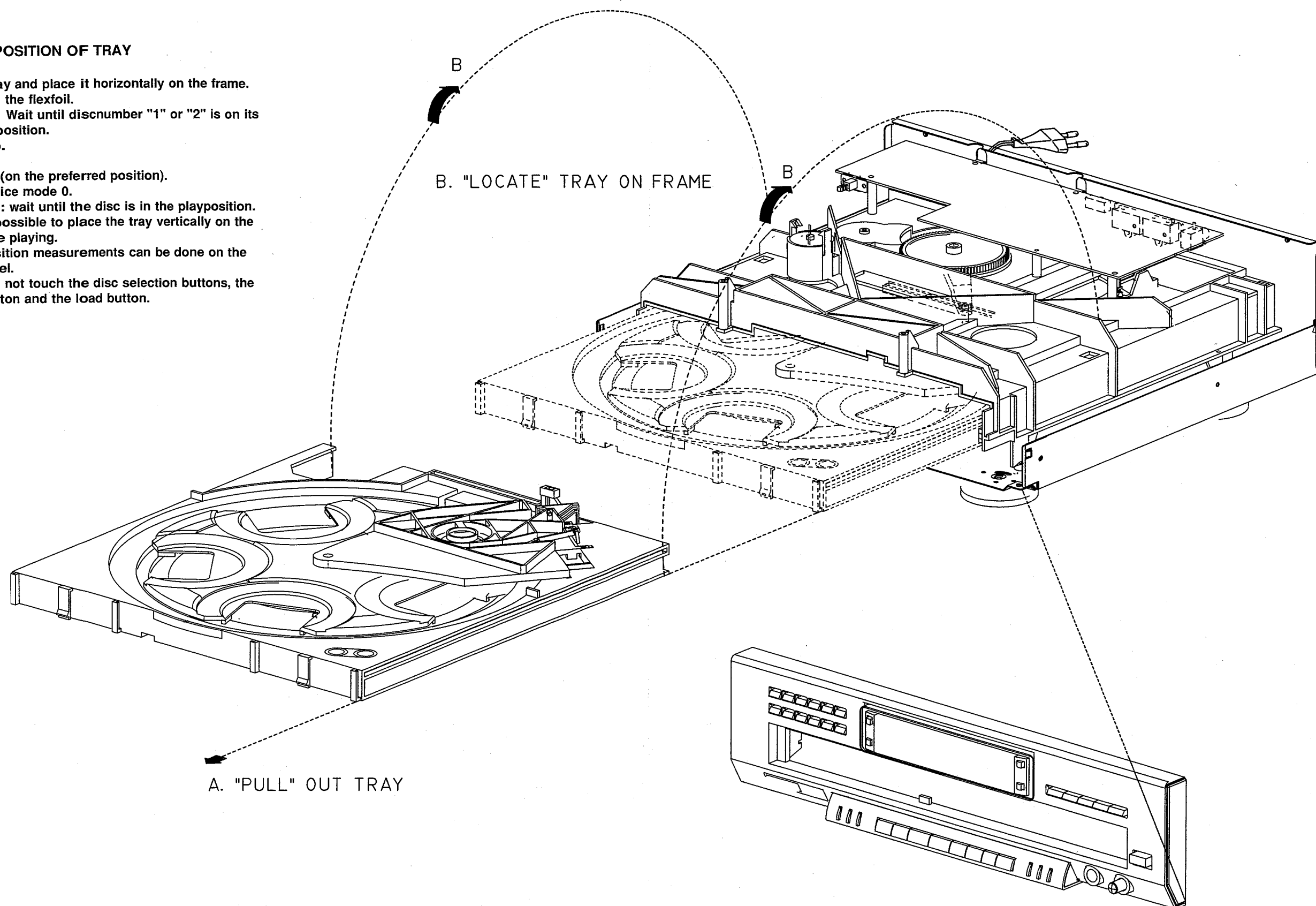
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4822 395 50132

4822 395 30204

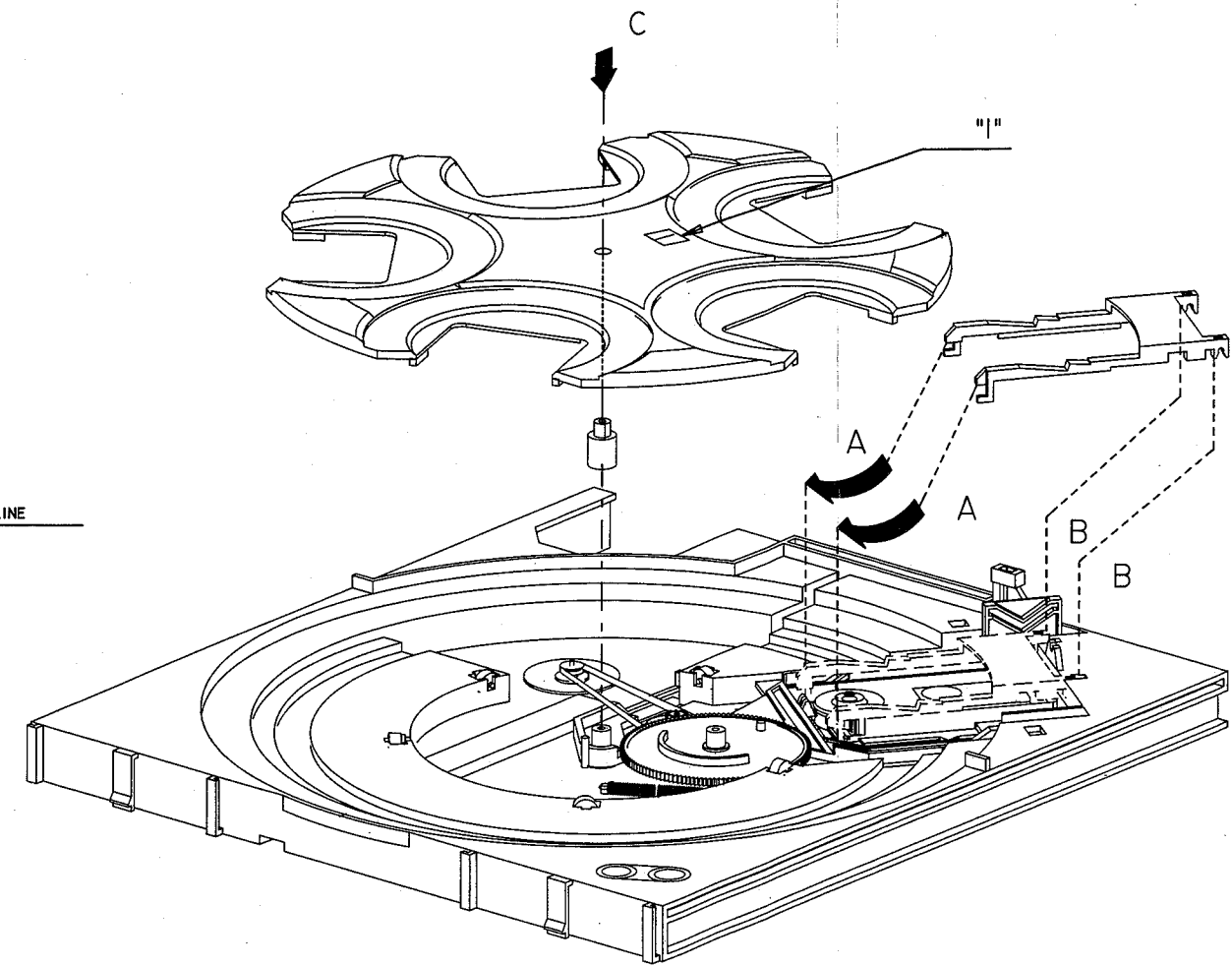
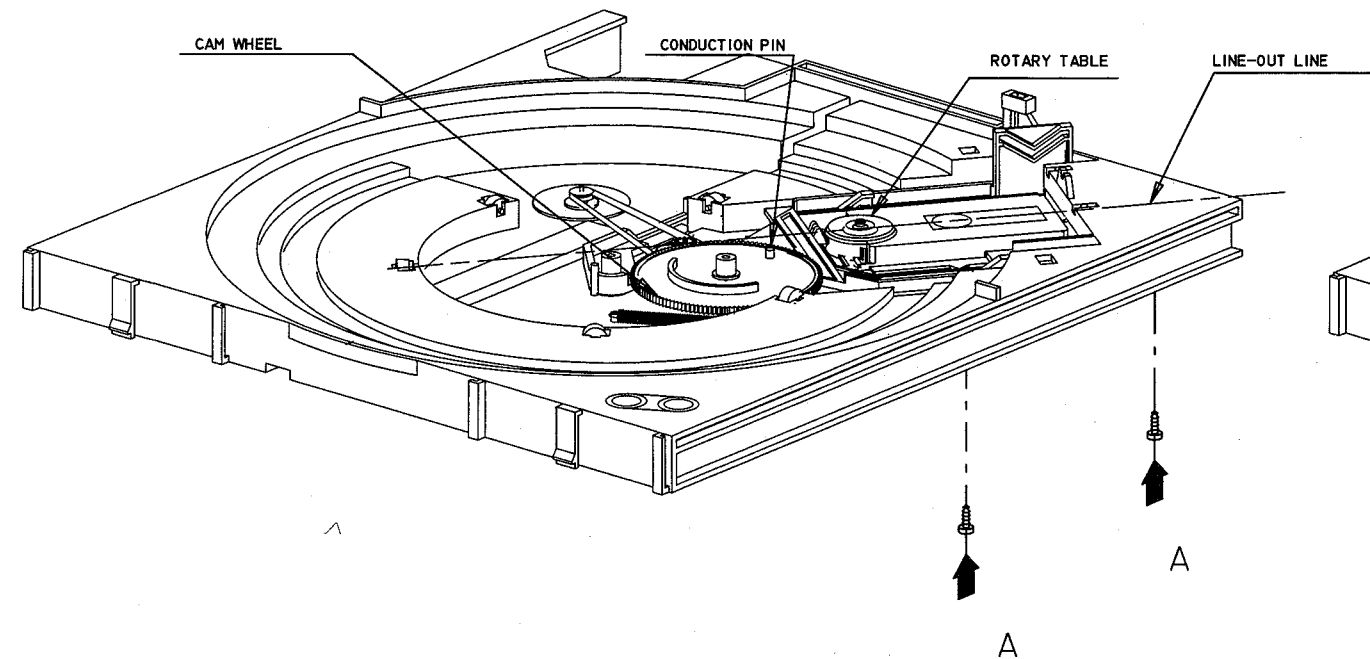
- Pull out tray and place it horizontally on the frame.
- Reconnect the flexfoil.
- Power on. Wait until discnumber "1" or "2" is on its preferred position.
- Press stop.
- Power off.
- Load disc (on the preferred position).
- Go to service mode 0.
- Press play: wait until the disc is in the playposition.
- Now it is possible to place the tray vertically on the frame while playing.
- In this position measurements can be done on the Servo Panel.

Please: do not touch the disc selection buttons, the shuffle button and the load button.



ASSEMBLY OF THE CARROUSEL

Turn camwheel (Exploded View item 116) until the conduction pin is in line with the rotary table of the CDM and the axis of the carousel, or until the conduction pin is close to the CDM. The CDM is now in the highest position (Play position). Mount the carousel with the discnumber "1" to the CDM.



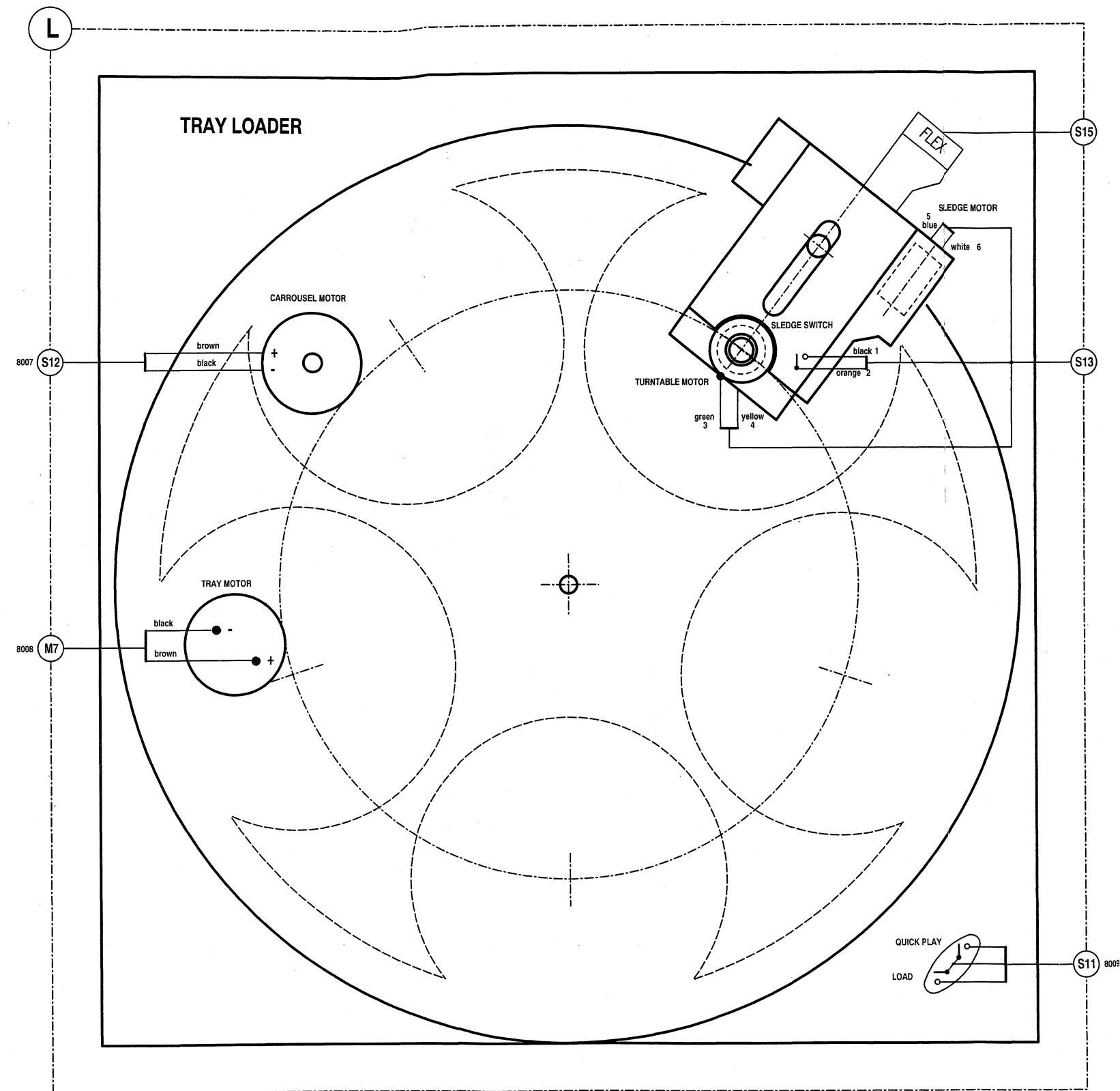
ABBREVIATIONS

ACK	Acknowledge signal display(active LOW)
BCK	Bit clock input of DAC
CARMOT	Carrousel motor
CARSW	Carrousel switch
CFLG	correction flag output
CL	interface clock input line
CL11	11.2896 MHz clock output
CL16	16.9344 MHz system clock output
CLA	4.2336 MHz microprocessor clock out put
CLO	Clock output
CRIN	crystal/resonator input
CROUT	crystal/resonator output
D1-D4	Central diode input of TDA1301
D1-D5	Photodiode signals from CDM12 mechanism
DA	interface data I/O line
DACCL	Bit clock output of CD6 decoder SAA7345
DACDA	Data output of CD6 decoder SAA7345
DACWS	Word select output of CD6 decoder SAA7345
DATA	serial data output/Data input of DAC
DISPOS	Disc position
DISRES	RESET display
DOBM	Digital AUDIO output
ESI	Enhanced System Intelligence
FO	Focus actuator output
FOC+	+Connection of focus actuator
FOC-	Ground connection of focus actuator
HF	High-Frequency signal to decoder input
HFIN	comparator signal input
HFREF	comparator common-mode input
IOL	Left channel current output
IOR	Right channel current output
IR	Infra red receiver remote control
IREF	Reference current output
ISLICE	current feedback from data slicer
LDON	Laser drive on
LOAD SW	Load switch
MISC	general purpose DAC output
MOTO1,2	motor output 1,2
NRST	Reset input
OTD	Off track detector
PORE	power-on reset enable input(active low)
R1-R2	Satellite diode signal input
RA	Radial actuator output
RAB	interface R/W and acknowledge input
RAD+	+Connection of radial actuator
RAD-	Ground connection of radial actuator
SCK	CLOCK display
SCLK	serial bit clock output
SDAT	Serial data
SDAT0	DATAIN display
SDIS	Select display
SICL	Serial interface clock
SIDA	Serial interface data
SILD	Serial interface load
SL	Sledge output
SL OUT	+Connection of sledge motor
SLEDGE SW	Sledge switch of CDM12 mechanism
V1-5	Versatile input pins
WCLK	Word clock output
WS	Word select input of DAC
XTLI	Oscillator input
XTLO	Oscillator output
XTLR	Oscillator reference

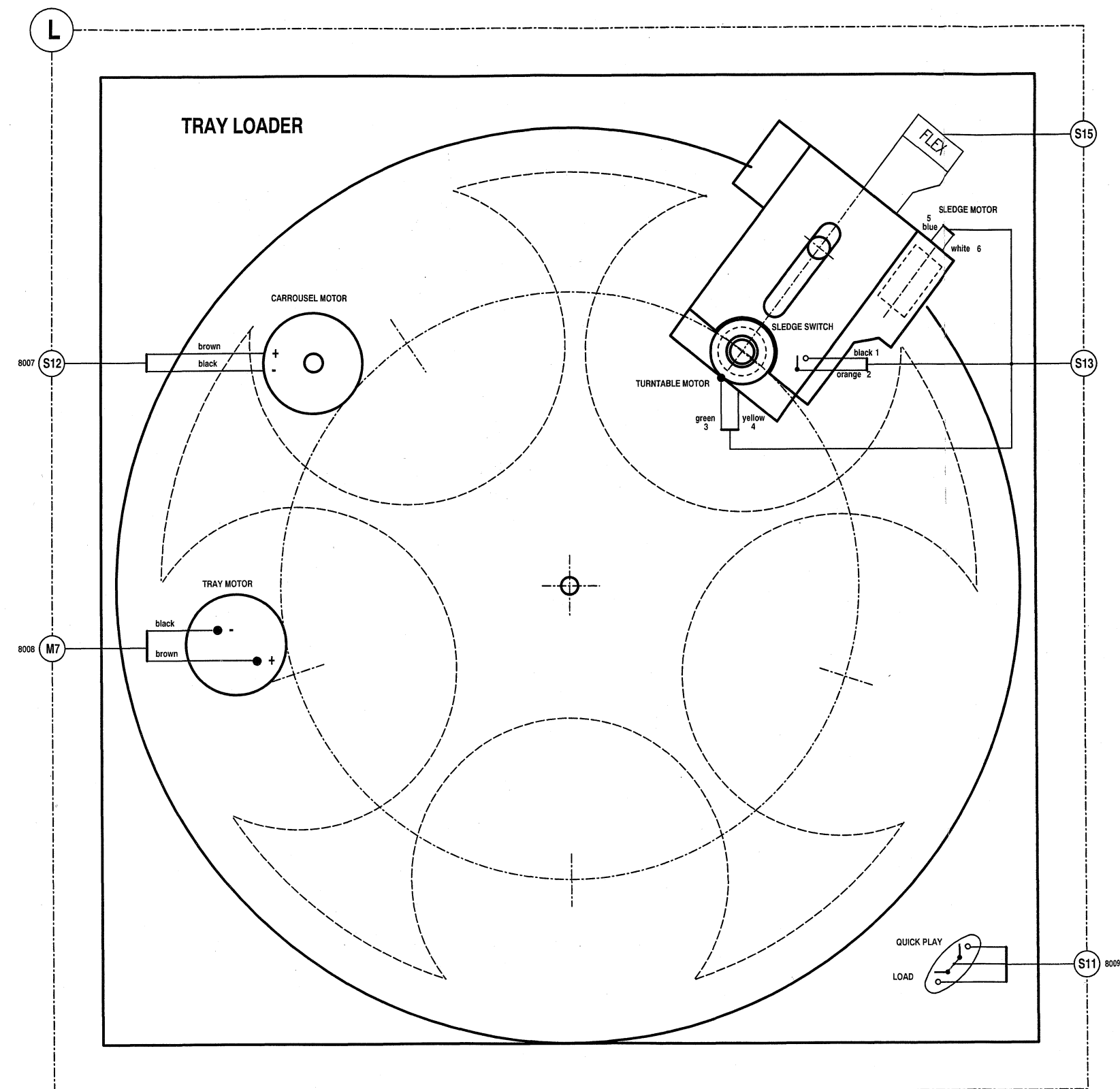
TRAY & CARROUSEL

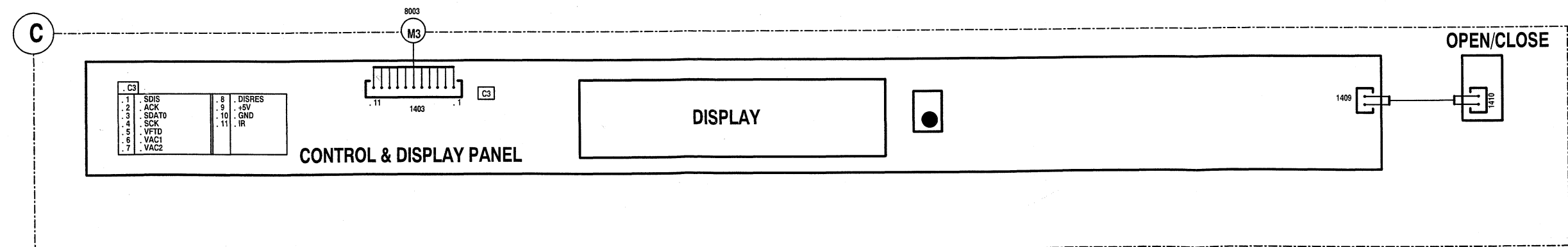
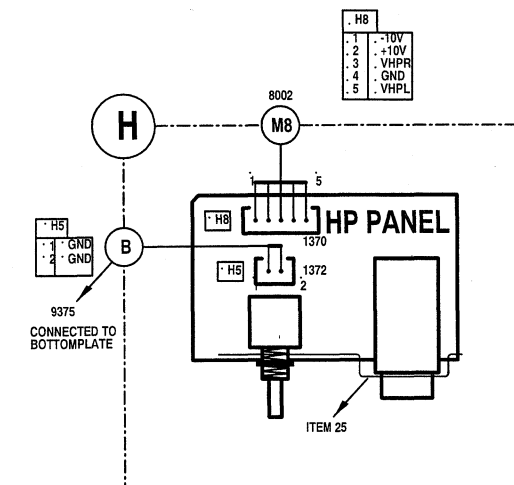
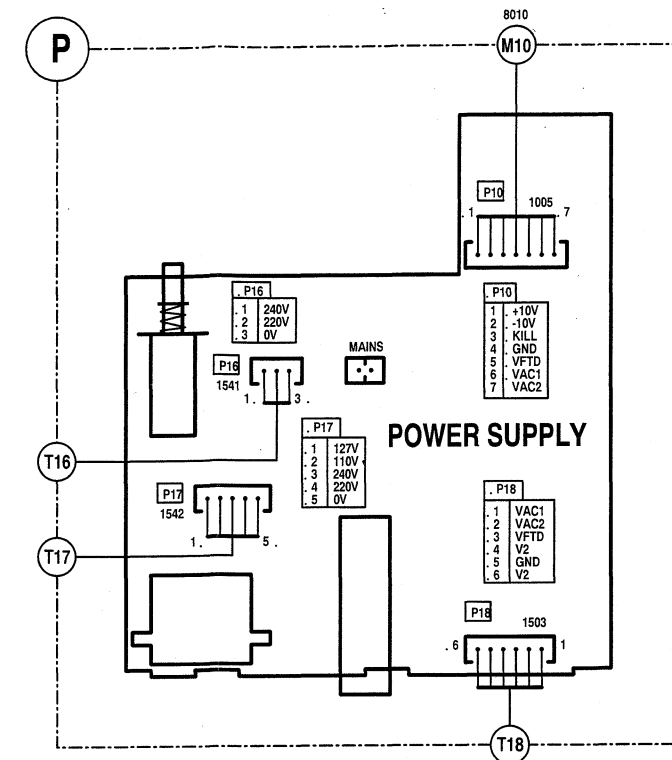
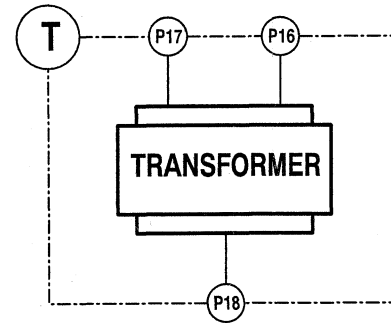
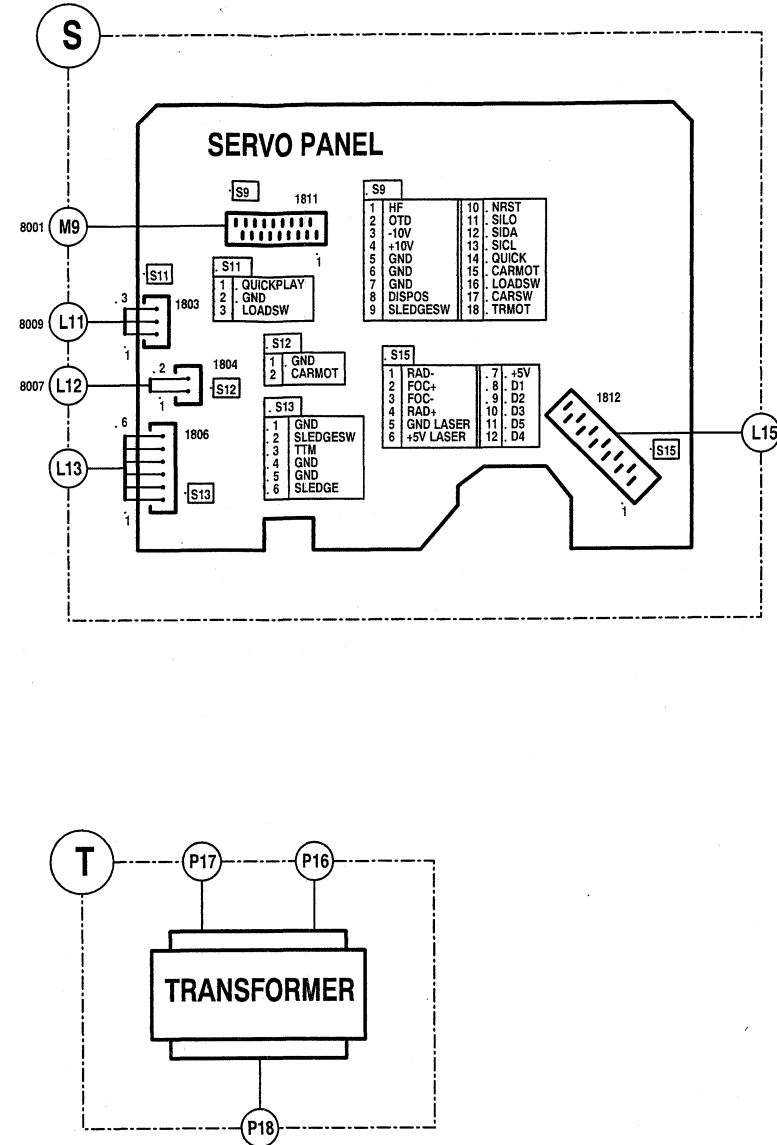
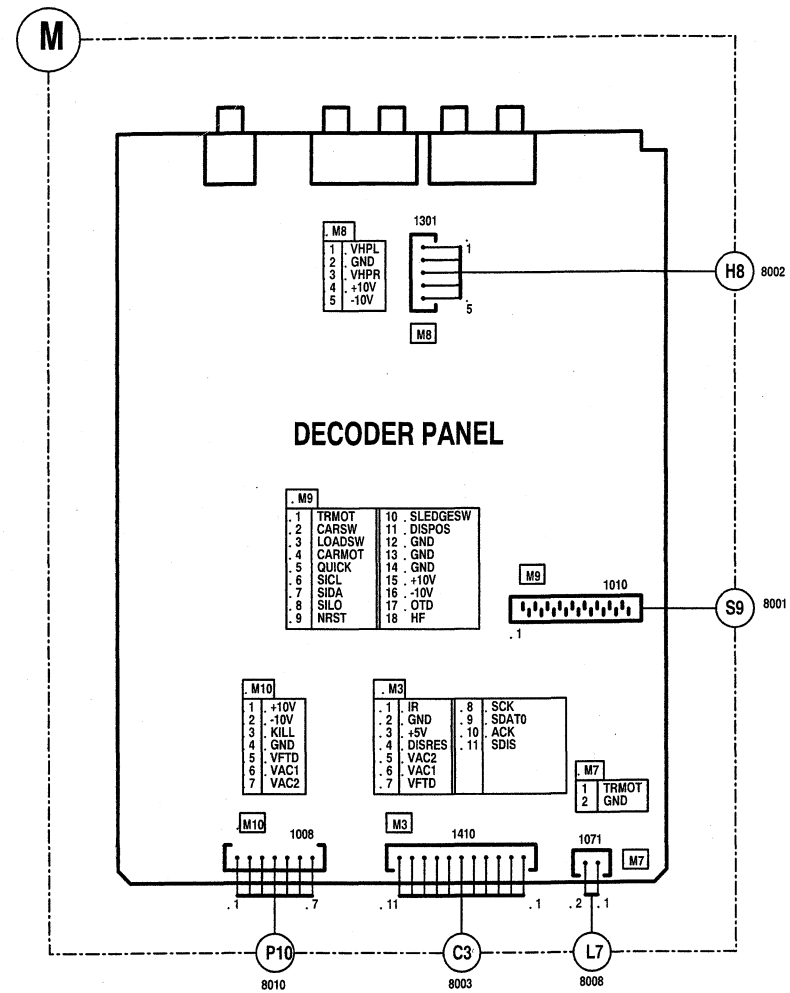


WIRING DIAGRAM

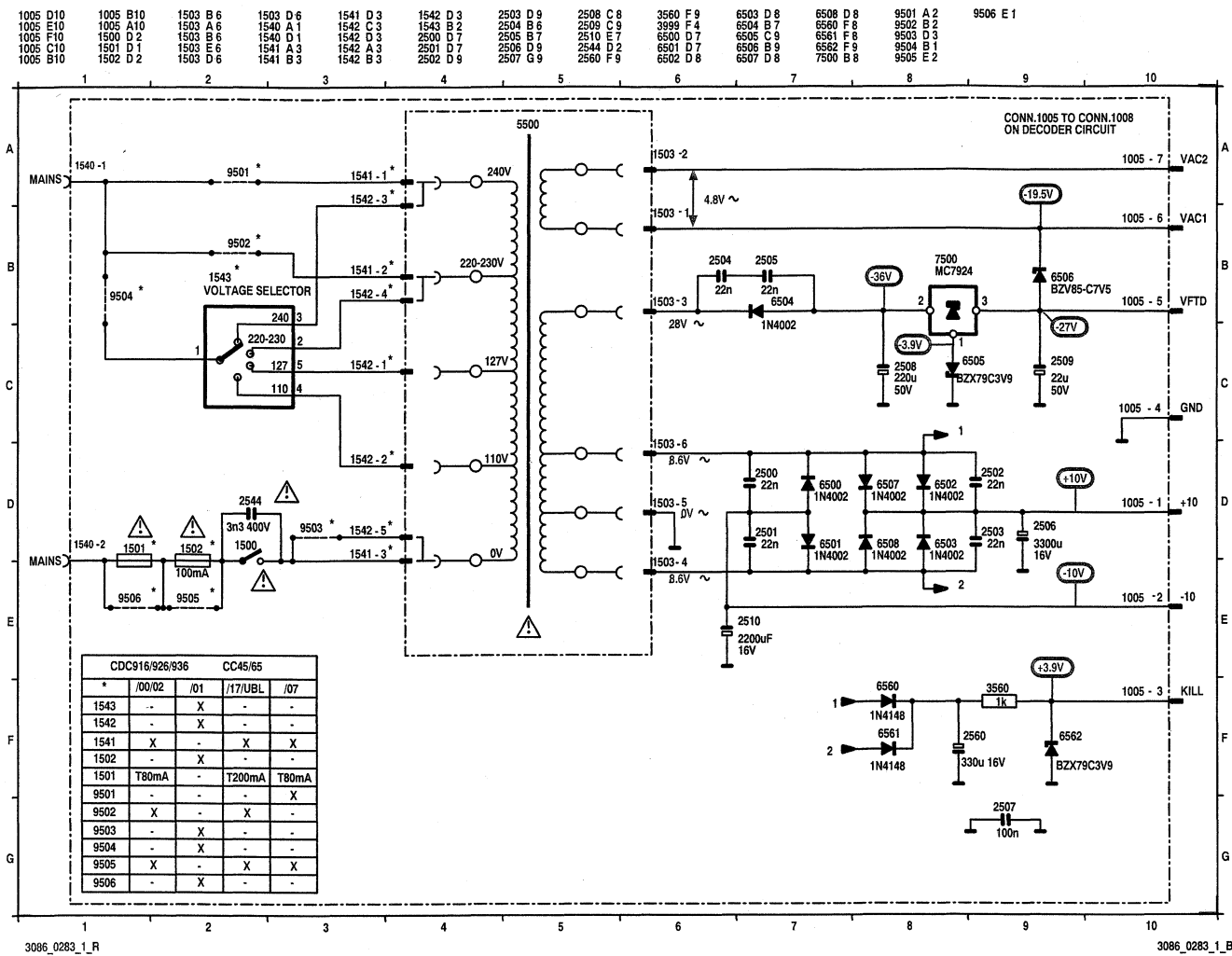


WIRING DIAGRAM

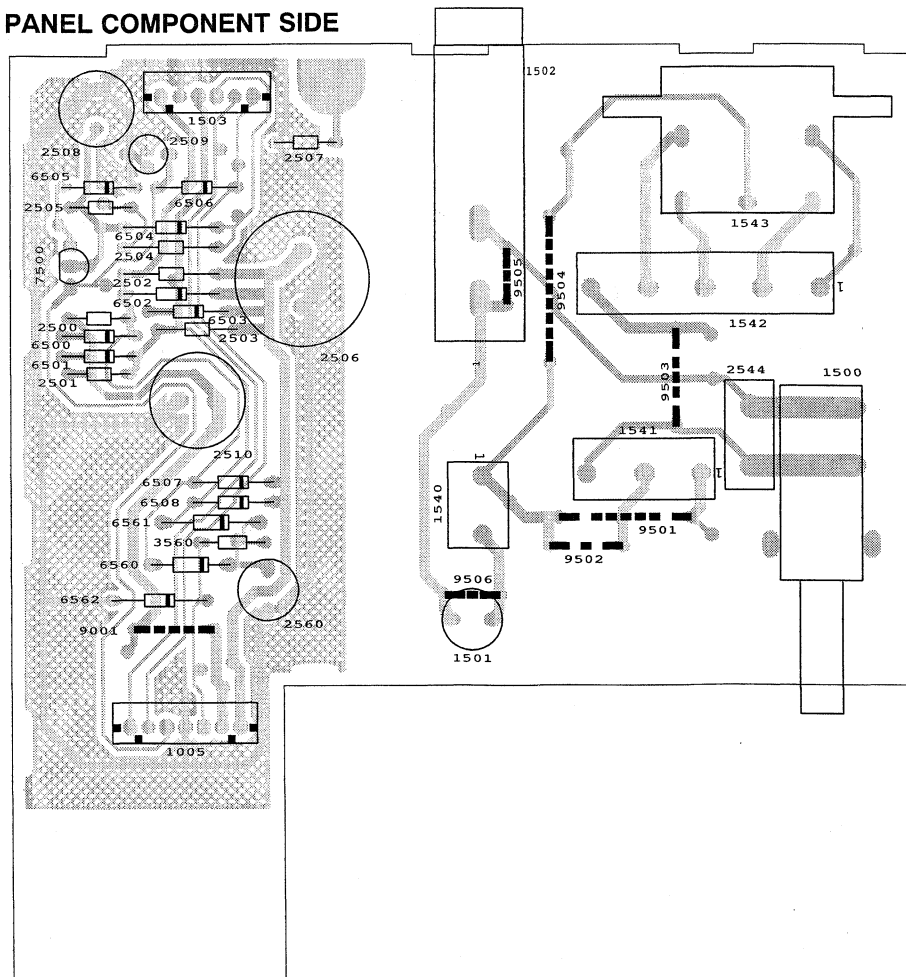




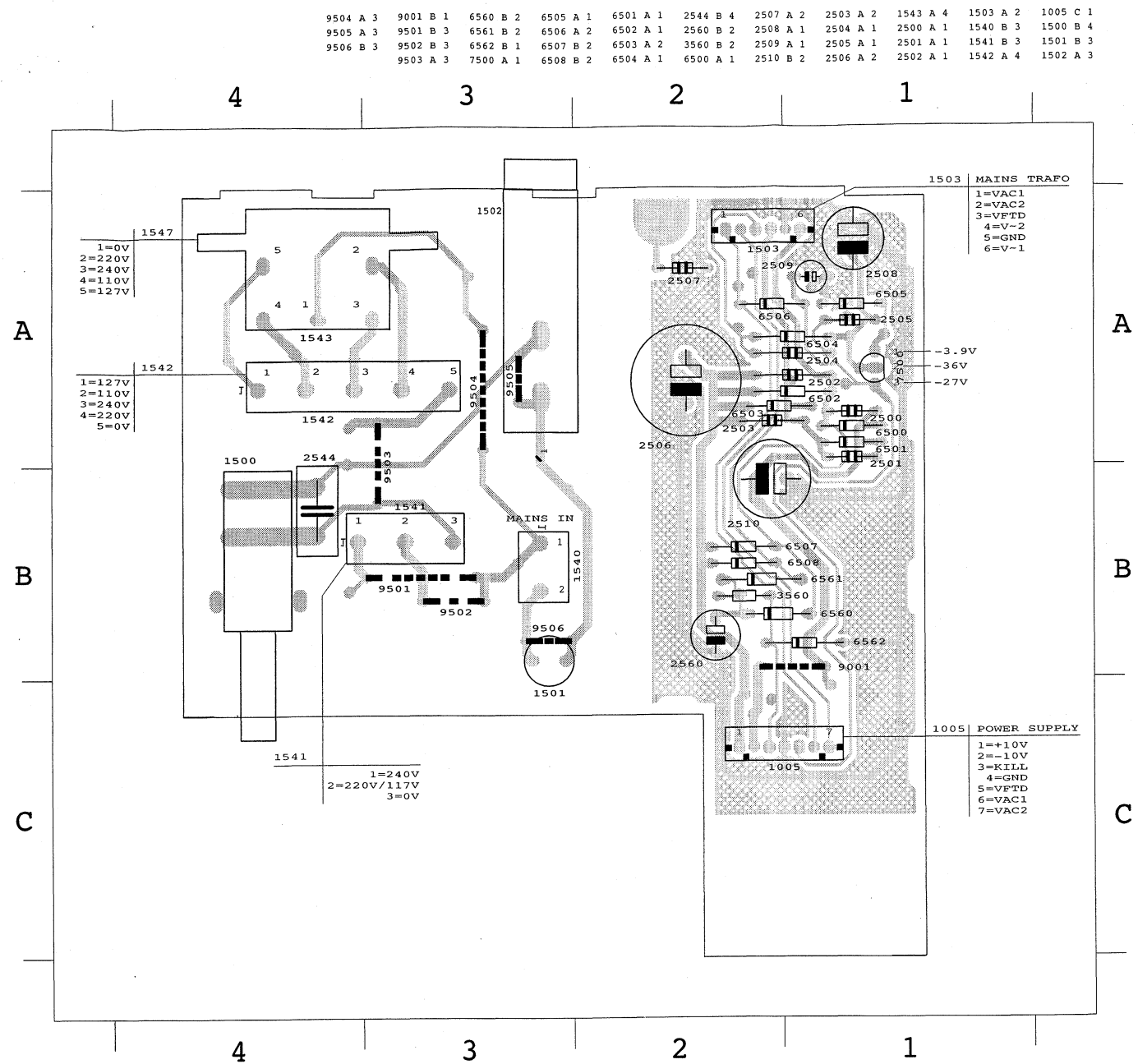
POWER SUPPLY CIRCUIT DIAGRAM



POWER SUPPLY PANEL COMPONENT SIDE



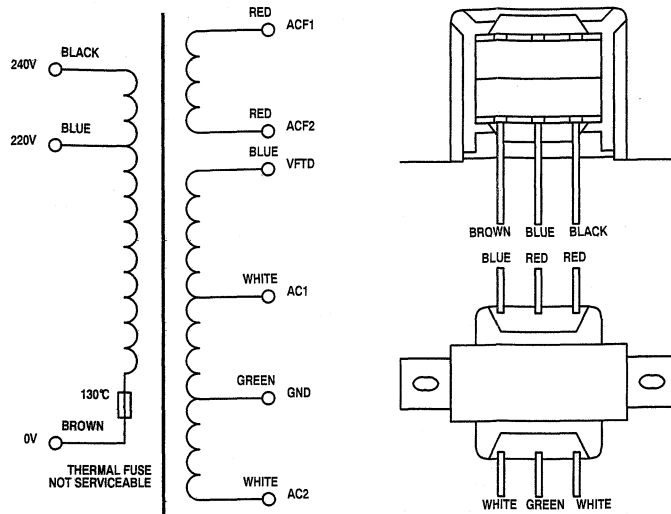
POWER SUPPLY PANEL SOLDER SIDE



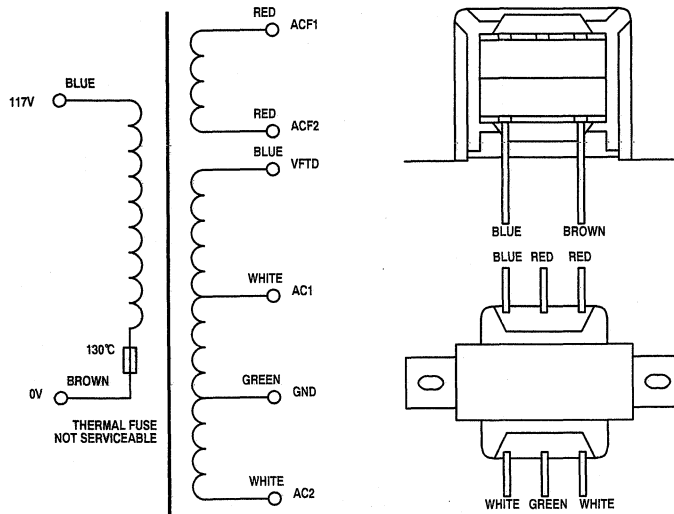
TRANSFORMER COI

TRANSFORMER CONNECTIONS

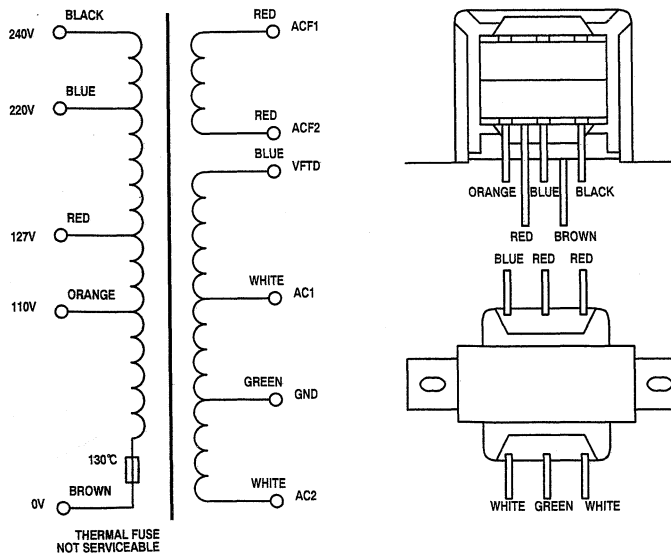
/00 /02 /07 VERSIONS

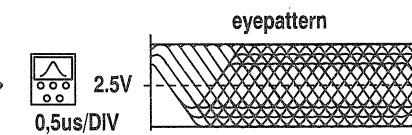
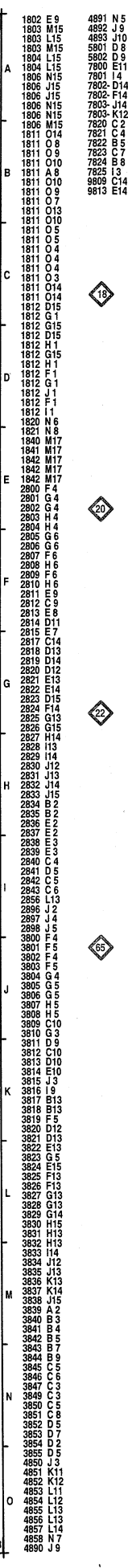


/17 VERSIONS

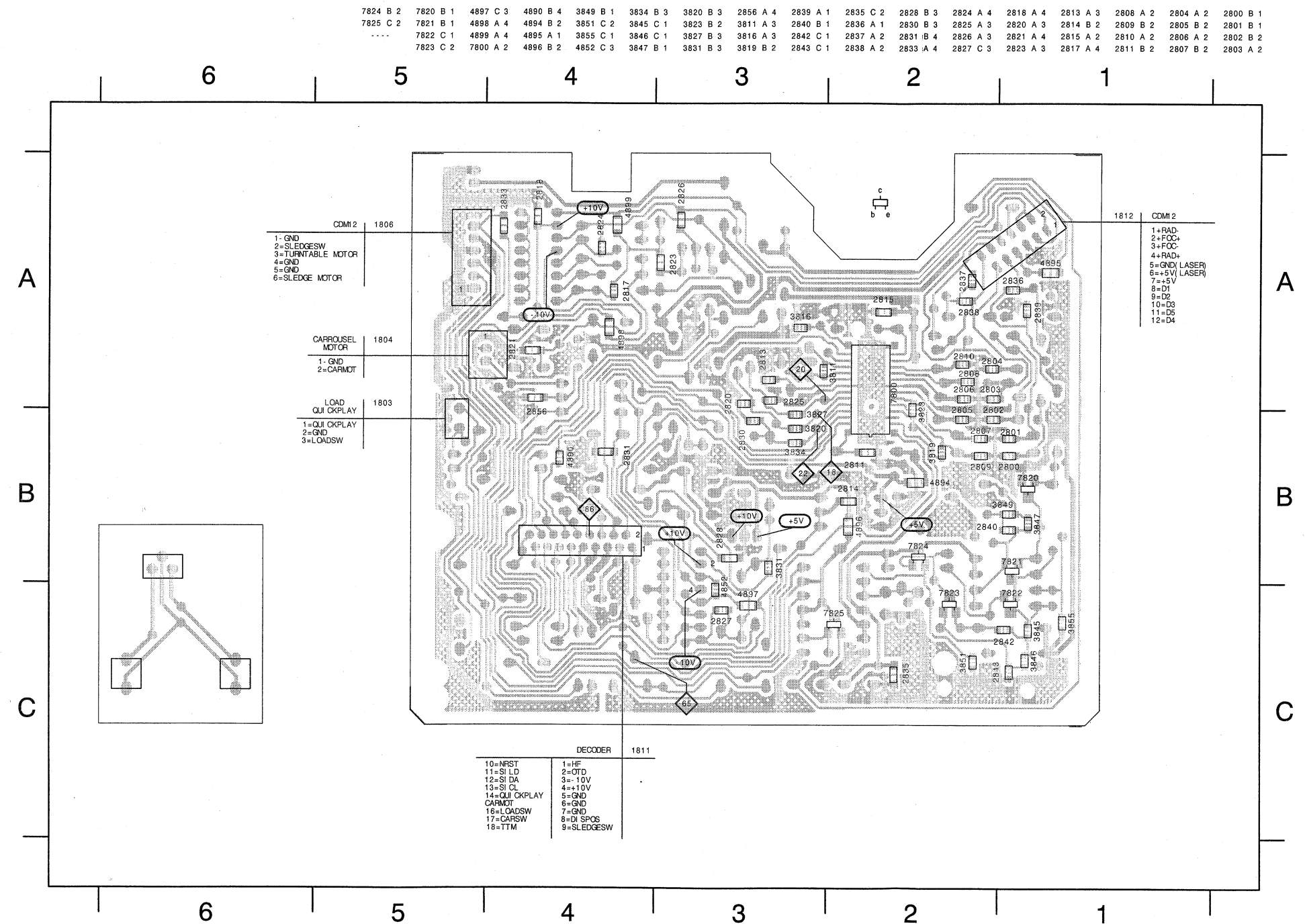


/01 VERSIONS



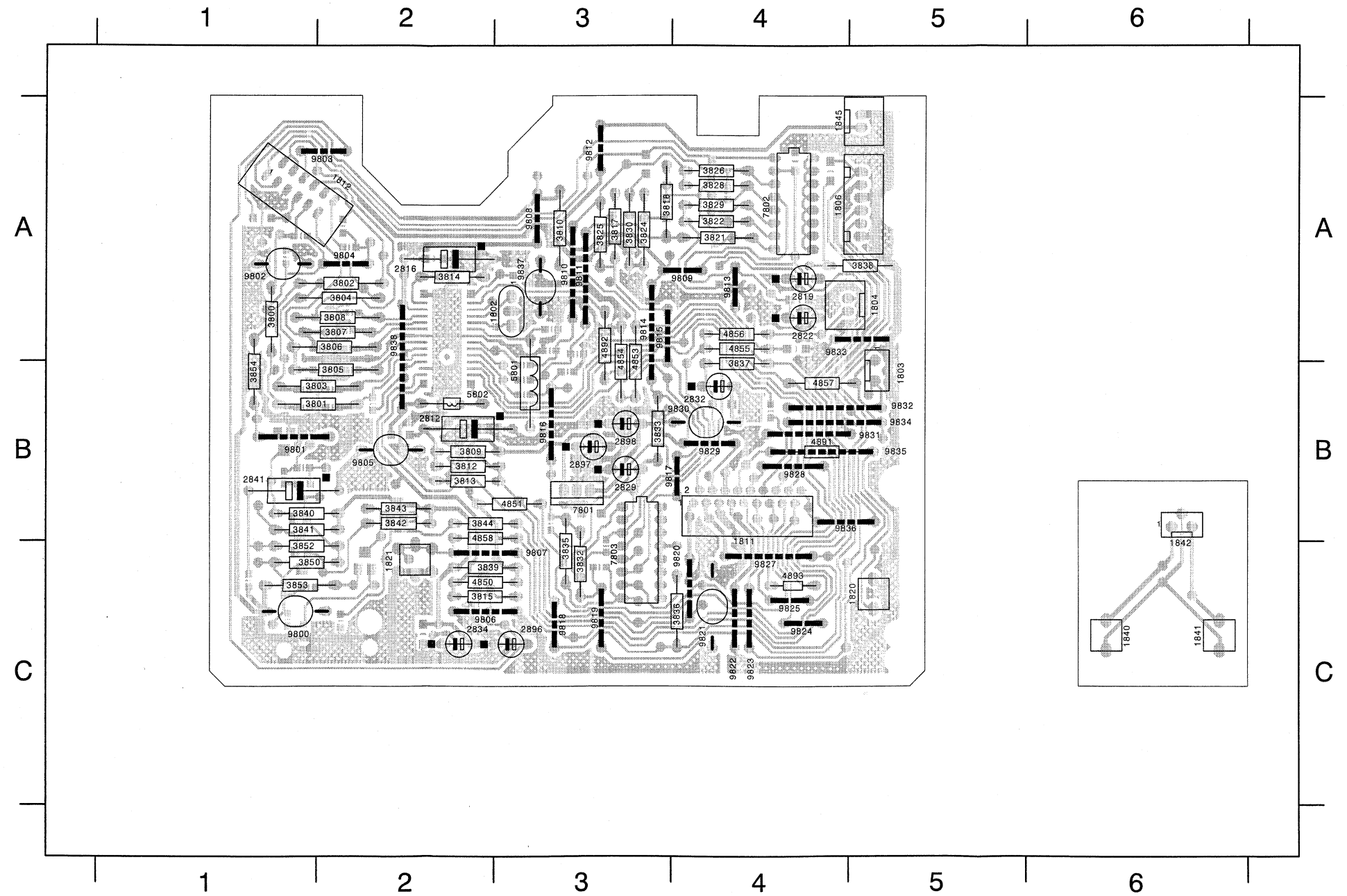


**SERVO PANEL
SOLDER SIDE**

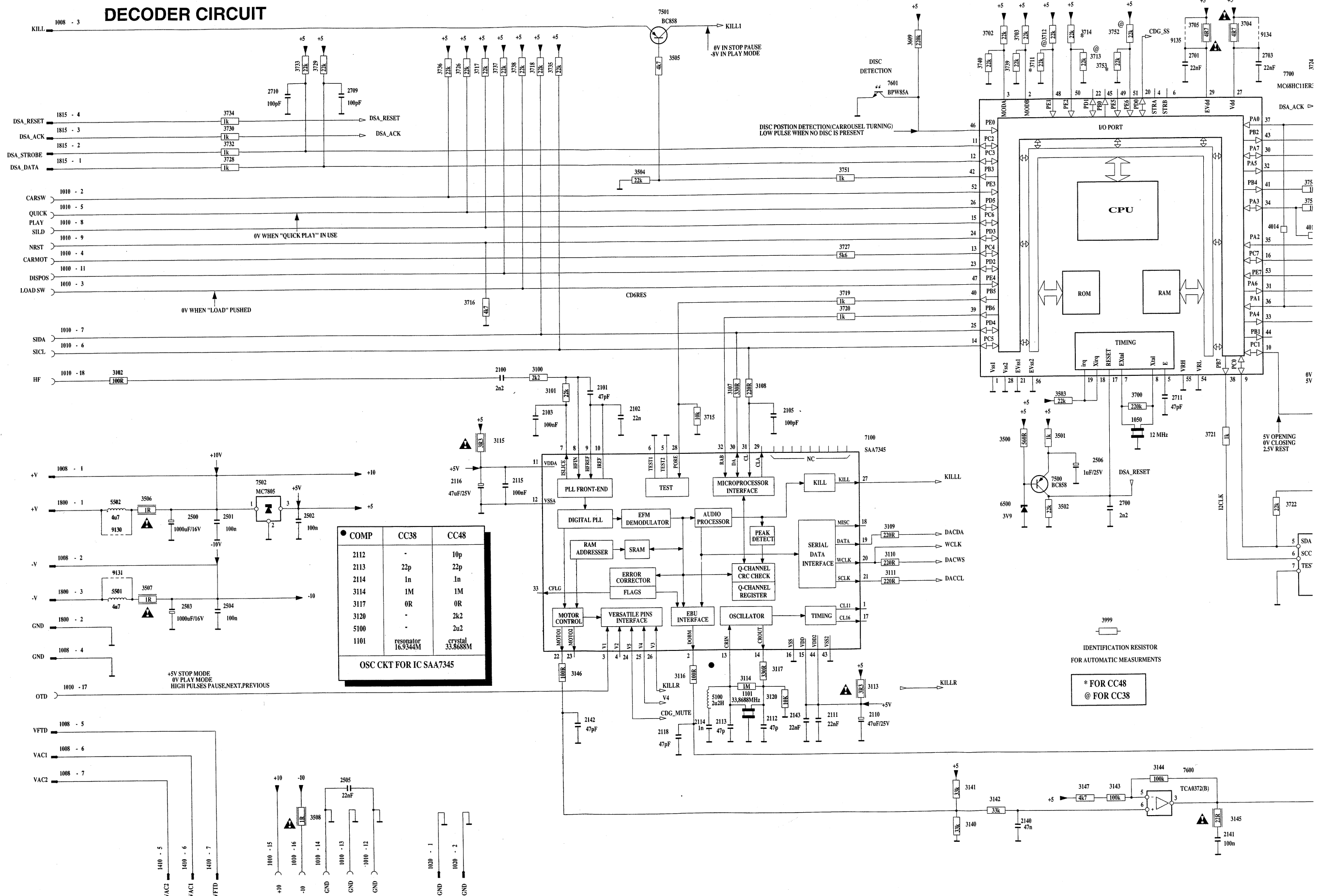


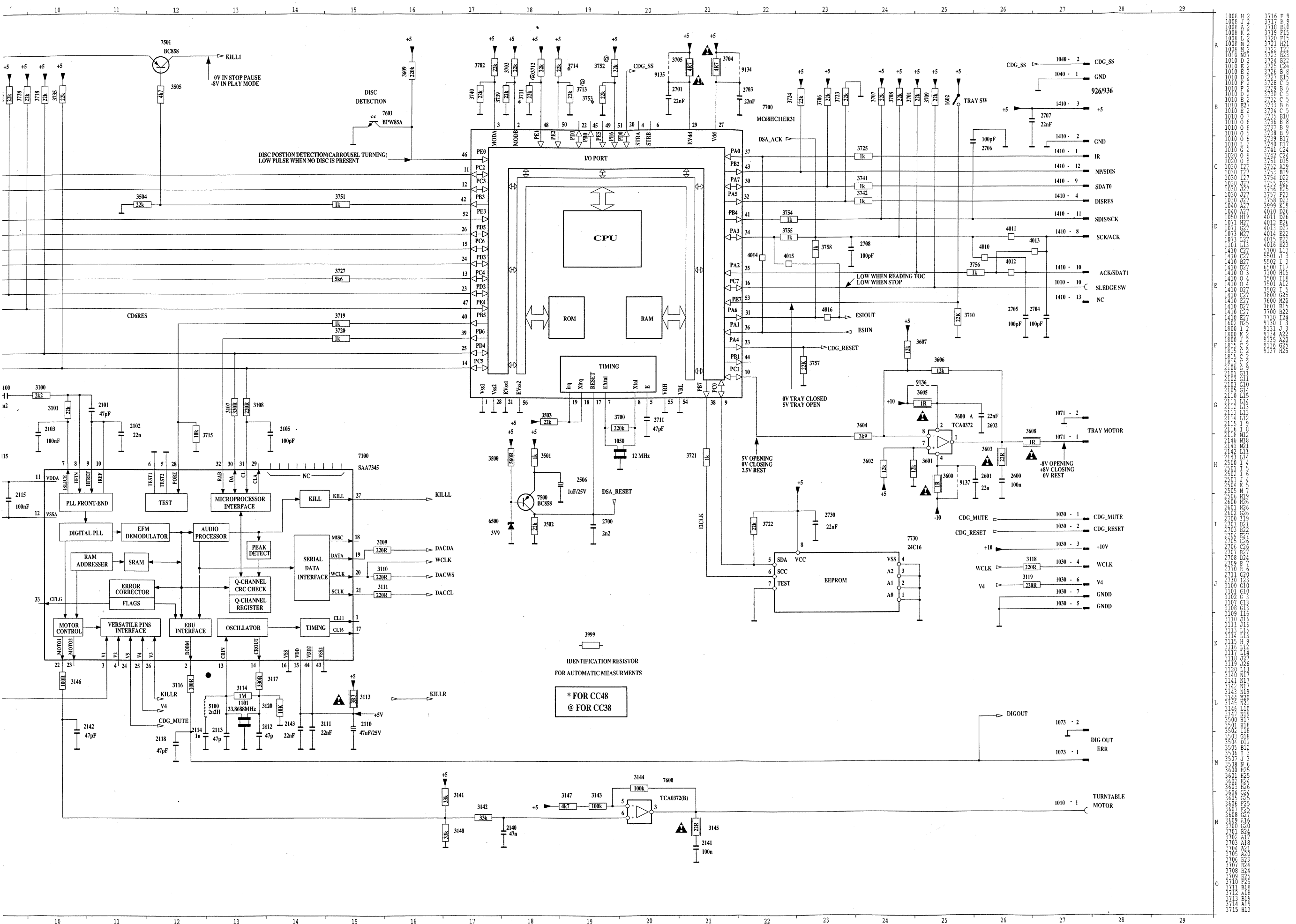
**SERVO PANEL
COMPONENT SIDE**

1802 A 3	1820 C 5	2822 A 4	2897 B 3	3804 A 2	3810 A 3	3818 A 3	3828 A 4	3836 C 4	3842 B 2	3854 B 1	4856 A 4	5801 B 3	9801 B 1	9807 C 2	9813 A 4	9819 C 3	9825 C 4	9832 B 4	9838 A 2
1803 B 5	1821 C 2	2829 B 3	2898 B 3	3805 B 2	3812 B 2	3821 A 4	3829 A 4	3837 B 4	3843 B 2	4850 C 2	4857 B 4	5802 B 2	9802 A 1	9808 A 3	9814 A 3	9820 C 4	9827 C 4	9833 A 5	
1804 A 5	1845 A 5	2832 B 4	3800 A 1	3806 A 2	3813 B 2	3822 A 4	3830 A 3	3838 A 5	3844 B 2	4851 B 3	4858 B 2	7801 B 3	9803 A 2	9809 A 4	9815 A 3	9821 C 4	9828 B 4	9834 B 4	1840 C 6
1806 A 5	2812 B 2	2834 C 2	3801 B 2	3807 A 2	3814 A 2	3824 A 3	3832 C 3	3839 C 2	3850 C 1	4853 B 3	4891 B 4	7802 A 4	9804 A 2	9810 A 3	9816 B 3	9822 C 4	9829 B 4	9835 B 4	1841 C 6
1811 B 4	2816 A 2	2841 B 1	3802 A 2	3808 A 2	3815 C 2	3825 A 3	3833 B 3	3840 B 1	3852 C 1	4854 B 3	4892 A 3	7803 B 3	9805 B 2	9811 A 3	9817 B 4	9823 C 4	9830 B 4	9836 B 4	1842 B 6
1812 A 1	2819 A 4	2896 C 3	3803 B 2	3809 B 2	3817 A 3	3826 A 4	3835 C 3	3841 B 1	3853 C 1	4855 A 4	4893 C 4	9800 C 1	9806 C 2	9812 A 3	9818 C 3	9824 C 4	9831 B 4	9837 A 3	



DECODER CIRCUIT



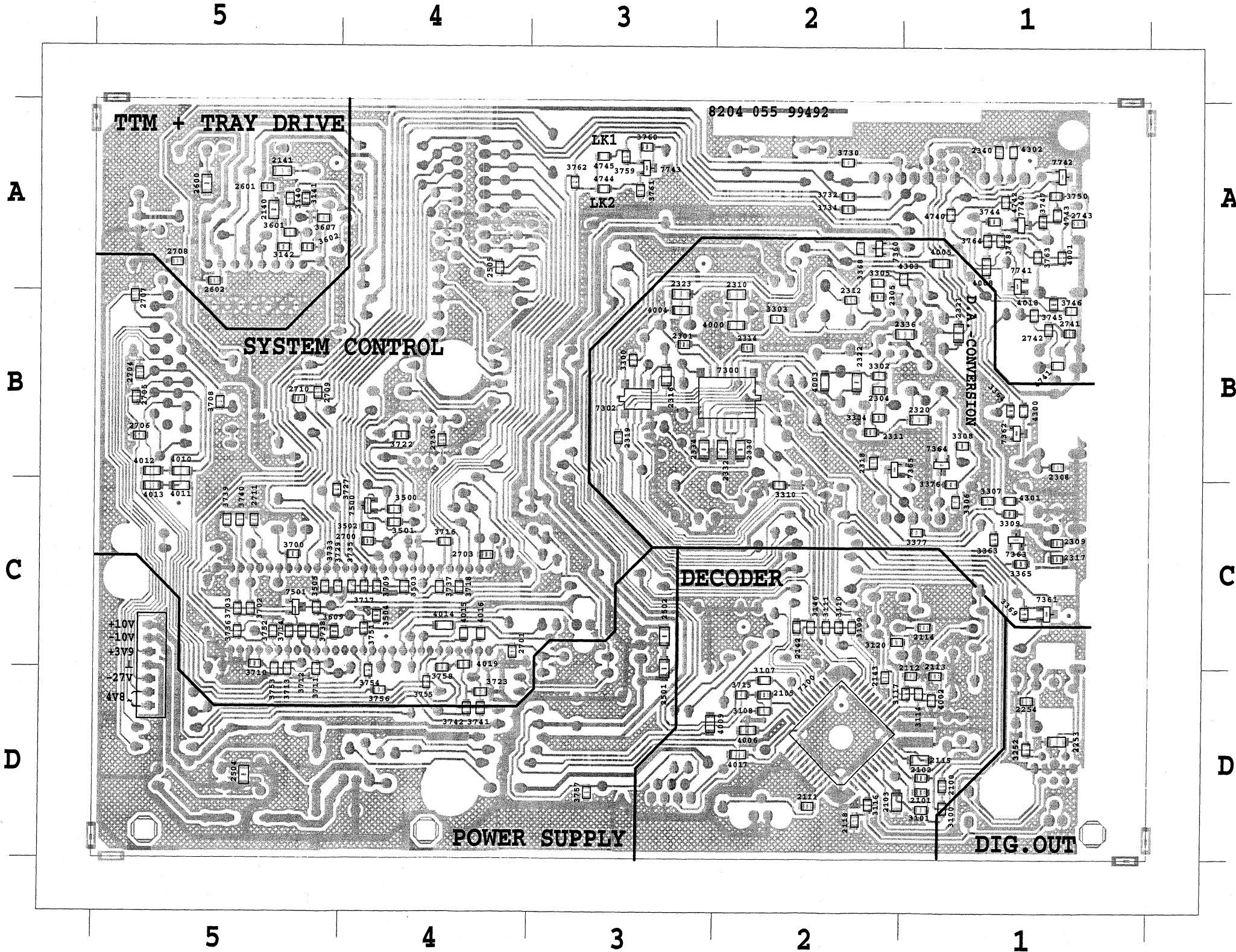


DECODER & DAC BOARD
(COPPER SIDE VIEW)

21

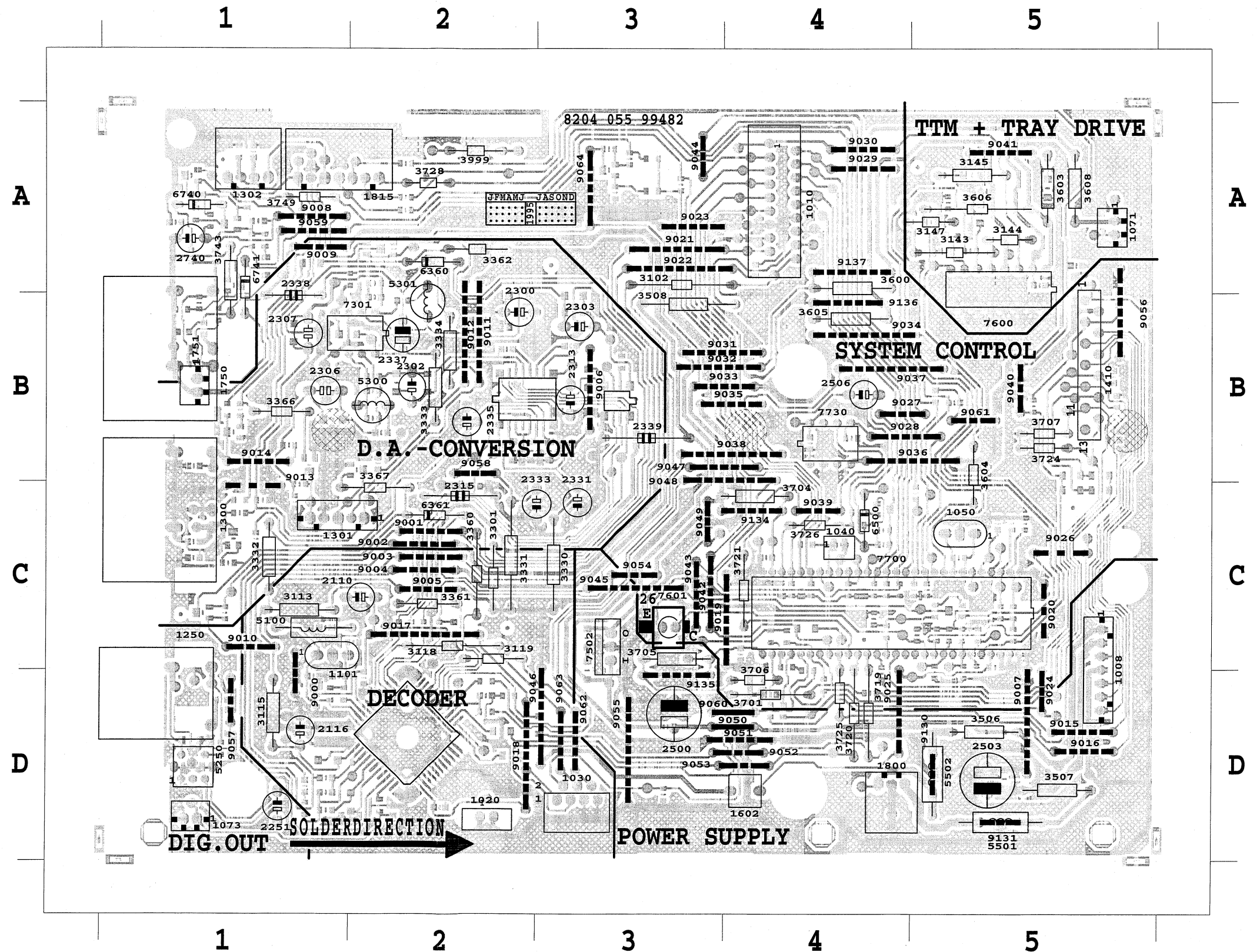
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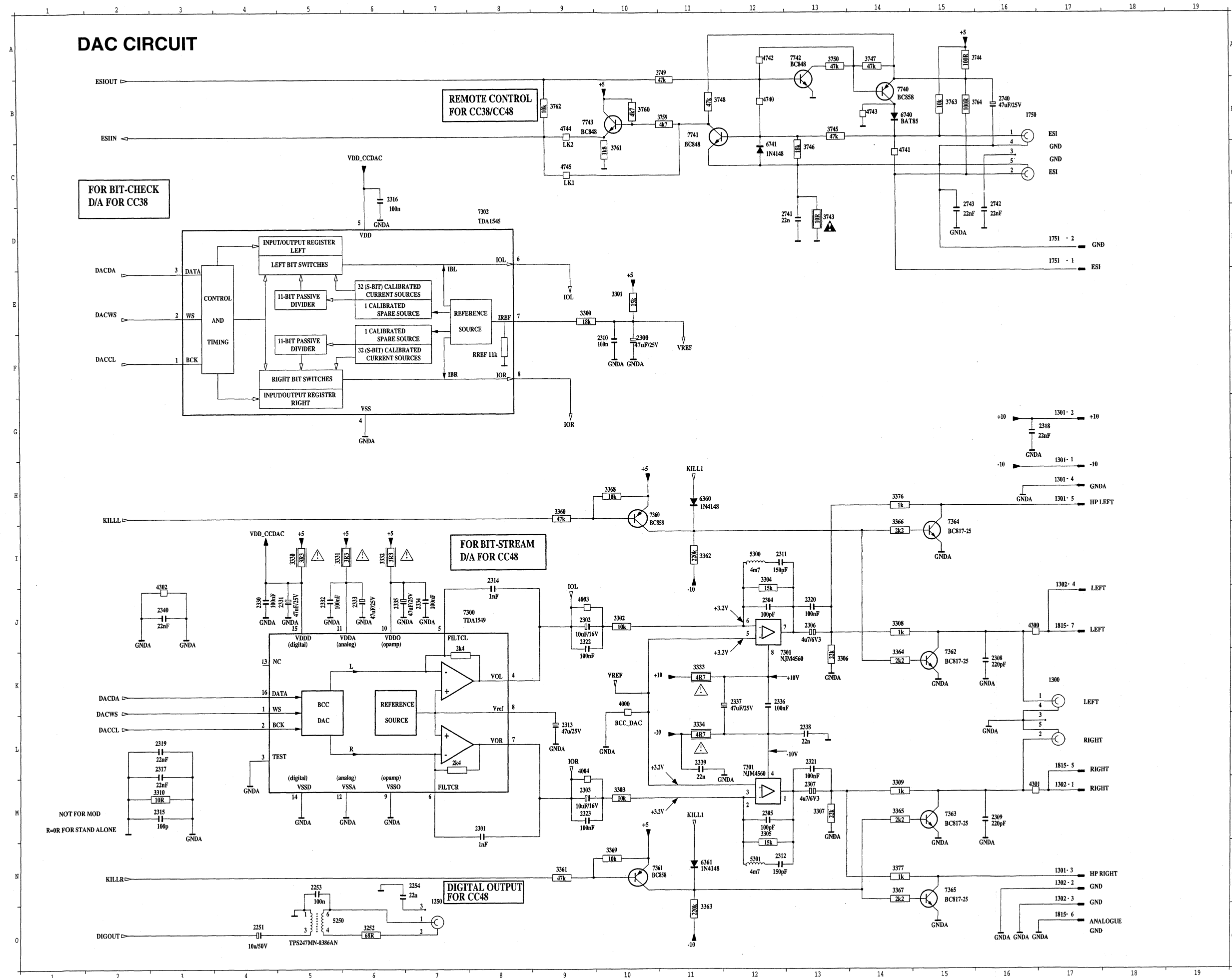
2100 D 1	2143 D 2	2318 B 2	2505 A 4	2711 C 5	3117 D 1	3308 B 1	3504 C 4	3713 D 5	3735 C 4	3751 C 4	4000 B 2	4015 C 4	4745 A 3	7742 A 1
2101 D 1	2253 D 1	2319 B 3	2600 A 5	2730 B 4	3120 C 2	3309 C 1	3505 C 5	3714 C 5	3736 C 5	3752 C 5	4001 A 1	4016 C 4	7100 D 2	7743 A 3
2102 D 1	2254 D 1	2320 B 1	2601 A 5	2741 B 1	3140 A 5	3310 C 2	3601 A 5	3715 D 2	3737 C 4	3753 D 5	4002 D 1	4017 D 2	7300 B 2	
2103 D 2	2301 B 3	2321 B 1	2602 A 5	2742 B 1	3141 A 5	3363 C 1	3602 A 5	3716 C 4	3738 C 5	3754 D 4	4003 B 2	4018 B 1	7302 B 3	
2105 D 2	2304 B 2	2322 B 2	2700 C 4	2743 A 1	3142 A 5	3364 B 1	3607 A 5	3717 C 4	3739 C 5	3755 D 4	4004 B 3	4019 C 4	7360 A 2	
2111 D 2	2305 B 2	2323 B 3	2701 C 4	3100 D 1	3146 C 2	3365 C 1	3609 C 5	3718 C 4	3740 C 5	3756 D 4	4005 A 1	4300 B 1	7361 C 1	
2112 D 1	2308 B 1	2330 B 2	2703 C 4	3101 D 1	3252 D 1	3368 A 2	3700 C 5	3722 B 4	3741 D 4	3757 D 3	4006 D 2	4301 C 1	7362 B 1	
2113 D 1	2309 C 1	2332 B 2	2704 B 5	3107 D 2	3300 B 3	3369 C 1	3702 C 5	3723 D 4	3742 D 4	3758 D 4	4008 A 1	4302 A 1	7363 C 1	
2114 C 1	2310 B 2	2334 B 3	2705 B 5	3108 D 2	3302 B 2	3376 C 1	3703 C 5	3727 C 5	3744 A 1	3759 A 3	4009 D 3	4303 A 1	7364 B 1	
2115 D 1	2311 B 2	2336 B 1	2706 B 5	3109 C 2	3303 B 2	3377 C 1	3708 B 5	3729 C 5	3745 B 1	3760 A 3	4010 B 5	4740 A 1	7365 B 2	
2118 D 2	2312 B 2	2340 A 1	2707 B 5	3110 C 2	3304 B 2	3500 C 4	3709 C 4	3730 A 2	3746 B 1	3761 A 3	4011 C 5	4741 B 1	7500 C 4	
2140 A 5	2314 B 2	2501 D 3	2708 A 5	3111 C 2	3305 A 2	3501 C 4	3710 C 5	3732 A 2	3747 A 1	3762 A 3	4012 B 5	4742 A 1	7501 C 5	
2141 A 5	2316 B 3	2502 C 3	2709 B 5	3114 D 1	3306 C 1	3502 C 4	3711 D 5	3733 C 5	3748 A 1	3763 A 1	4013 C 5	4743 A 1	7740 A 1	
2142 C 2	2317 C 1	2504 D 5	2710 B 5	3116 D 2	3307 C 1	3503 C 4	3712 C 5	3734 A 2	3750 A 1	3764 A 1	4014 C 4	4744 A 3	7741 A 1	



DECODER & DAC BOARD (COMPONENT SIDE)

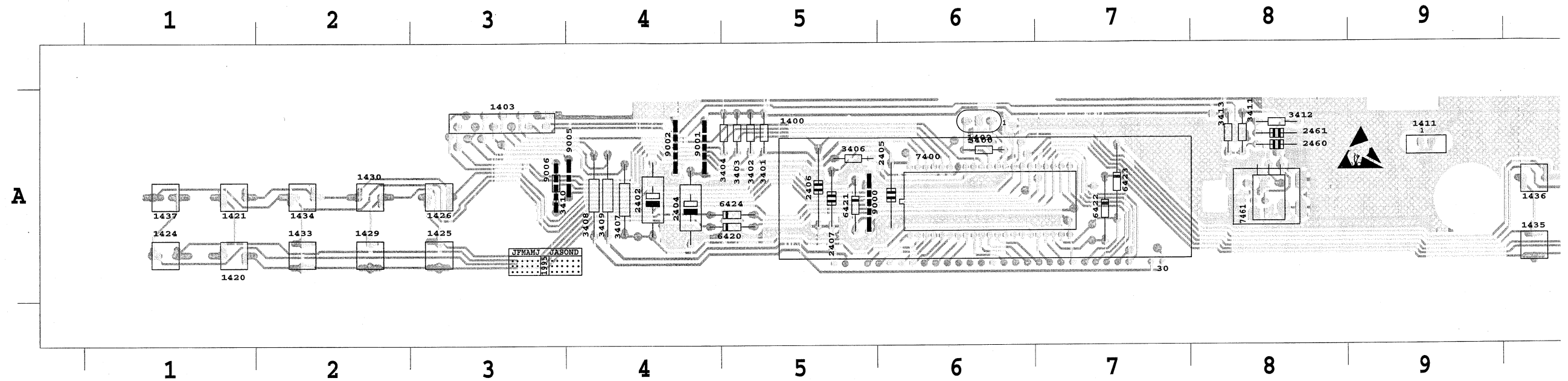
1008 C 5	1302 A 1	2303 B 3	2503 D 5	3301 C 2	3507 D 5	3707 B 5	5250 D 1	7600 A 5	9009 A 1	9022 A 3	9034 B 4	9046 D 3	9061 B 5
1010 A 4	1410 B 5	2306 B 1	2506 B 4	3330 C 3	3508 B 3	3719 D 4	5300 B 2	7601 C 3	9010 C 1	9023 A 3	9035 B 4	9047 B 3	9062 D 3
1020 D 2	1602 D 4	2307 B 1	2740 A 1	3331 C 2	3600 A 4	3720 D 4	5301 B 2	7700 C 4	9011 B 2	9024 D 5	9036 B 5	9048 B 4	9063 D 3
1030 D 3	1750 B 1	2313 B 3	3102 A 3	3332 C 1	3603 A 5	3721 C 4	5501 D 5	7730 B 4	9012 B 2	9025 D 4	9037 B 4	9049 C 3	9064 A 3
1040 C 4	1751 B 1	2315 C 2	3113 C 1	3333 B 2	3604 B 5	3724 B 5	5502 D 5	9001 C 2	9014 B 1	9026 C 5	9038 B 4	9050 D 4	9130 D 5
1050 C 5	1800 D 4	2331 C 3	3115 D 1	3334 B 2	3605 B 4	3725 D 4	6360 A 2	9002 C 2	9015 D 5	9027 B 4	9039 C 4	9051 D 4	9131 D 5
1071 A 5	1815 A 1	2333 C 2	3118 C 2	3360 C 2	3606 A 5	3726 C 4	6361 C 2	9003 C 2	9016 D 5	9028 B 4	9040 B 5	9052 D 4	9134 C 4
1073 D 1	2110 C 2	2335 B 2	3119 C 2	3361 C 2	3608 A 5	3728 A 2	6500 C 4	9004 C 2	9017 C 2	9029 A 4	9041 A 5	9053 D 4	9135 D 3
1101 C 1	2116 D 1	2337 B 2	3143 A 5	3362 A 2	3701 D 4	3743 A 1	6740 A 1	9005 C 2	9018 D 2	9030 A 4	9042 C 3	9054 C 3	9136 B 4
1250 D 1	2251 D 1	2338 B 1	3144 A 5	3366 B 1	3704 C 4	3749 A 1	6741 A 1	9006 B 3	9019 C 4	9031 B 3	9043 C 3	9058 B 2	9137 A 4
1300 C 1	2300 B 2	2339 B 3	3145 A 5	3367 C 2	3705 C 3	3999 A 2	7301 B 2	9007 D 5	9020 C 5	9032 B 3	9044 A 3	9059 A 1	
1301 C 1	2302 B 2	2500 D 3	3147 A 5	3506 D 5	3706 D 4	5100 C 1	7502 C 3	9008 A 1	9021 A 3	9033 B 3	9045 C 3	9060 D 4	





The diagram illustrates a VCR control system architecture. At the top, a 1403 11-bit parallel-to-serial converter is connected to a 1400 8-BT-172GK display. The display shows track, peak, TOT, REM, TRACK, and TIME information, along with buttons for PROGRAM, FTS, SHUFFLE, VIDEO CD-I+G, PAUSE, REPEAT, and 1 DISC. The microcontroller (7400 TMP47C212) is the central component, interfaced with a ROM, RAM, ALU, and timing generators. It controls a series of relays (1409, 1410, 1411) for tape transport functions like OPEN/CLOSE, SCAN, TIME, STOP, FADER, REPEAT, PAUSE, EDIT, PREV., SCHUFFLE, and PROGRAM. The schematic includes power supply sections with +5V and -VKK1 rails, and various passive components like resistors, capacitors, and diodes.

1400	A11
1402	H
1403	H
1404	H
1405	H
1406	G
1407	H
1408	H
1409	H
1410	J
1411	J
1412	J
1413	J
1414	E
1415	E
1416	E
1417	E
1418	E
1419	E
1420	E
1421	D
1422	D
1423	D
1424	D
1425	E
1426	E
1427	E
1428	E
1429	F
1430	F
1431	F
1432	F
1433	F
1434	F
1435	F
1436	F
1437	F
1438	T
1439	T
1440	H
1441	F
1442	F
1443	F
1444	F
1445	F
1446	F
1447	F
1448	F
1449	F
1450	F
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1611	D
1612	D
1613	D
1614	D
1615	D
1616	D
1617	D
1618	D
1619	D
1620	D
1621	D
1622	D
1623	D
1624	D
1625	D
1626	D
1627	D
16	



A 10	2402 A 4	2406 A 5	2461 A 8	3402 A 5	3406 A 5	3409 A 4	3412 A 8	6421 A 5	6424 A 5	7461 A 8	9002 A 4
A 10	2404 A 4	2407 A 5	3400 A 6	3403 A 5	3407 A 4	3410 A 3	3413 A 8	6422 A 7	7400 A 6	9000 A 5	9005 A 4
A, 1	2405 A 6	2460 A 8	3401 A 5	3404 A 5	3408 A 4	3411 A 8	6420 A 5	6423 A 7		9001 A 4	9006 A 3

4

5

6

7

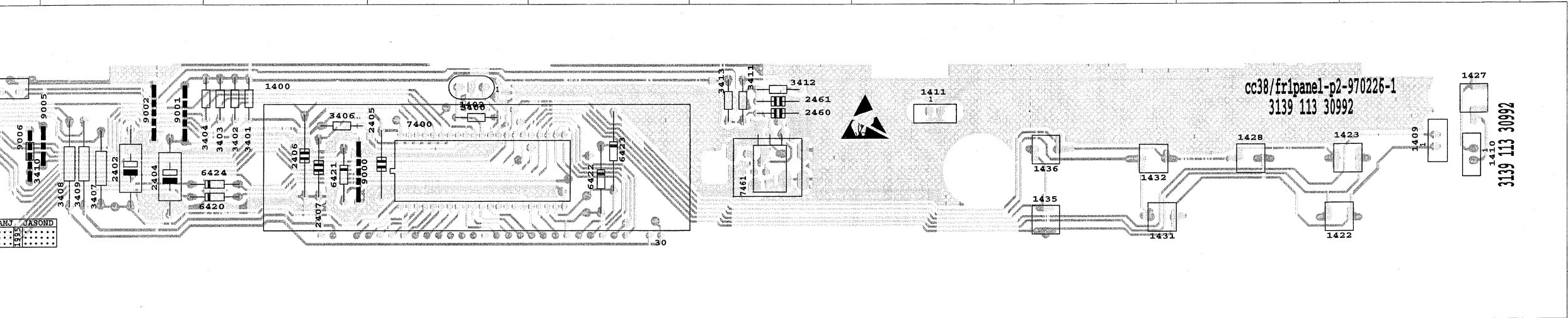
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11

12



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8

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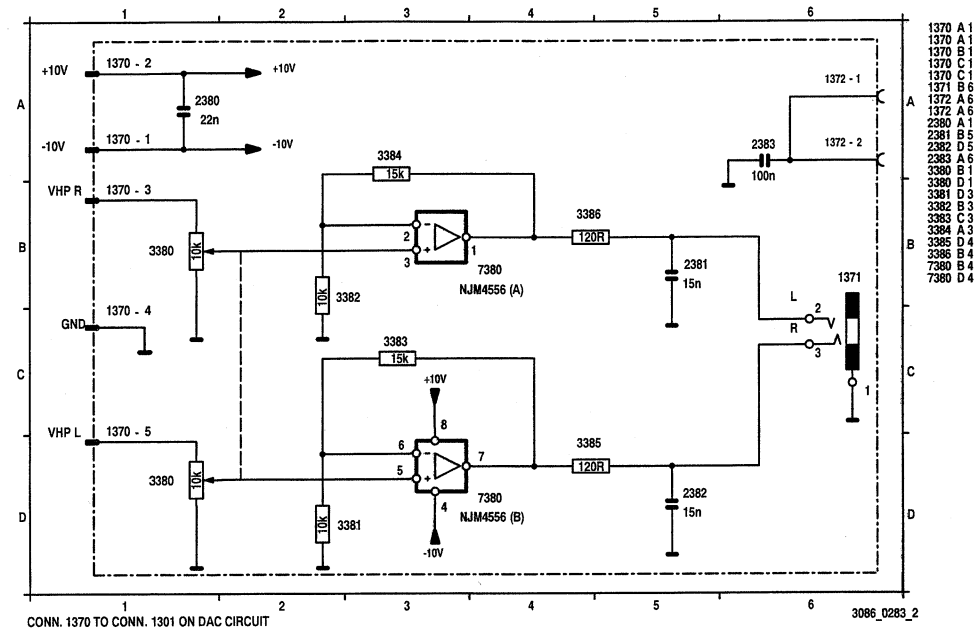
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11

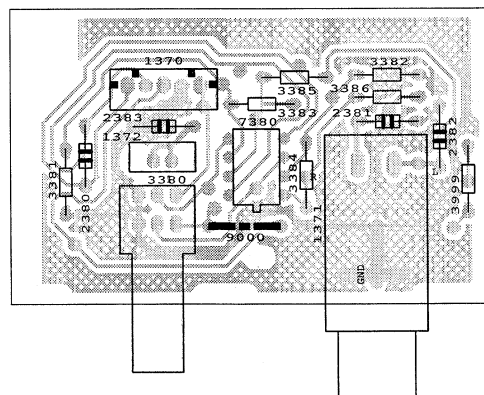
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A

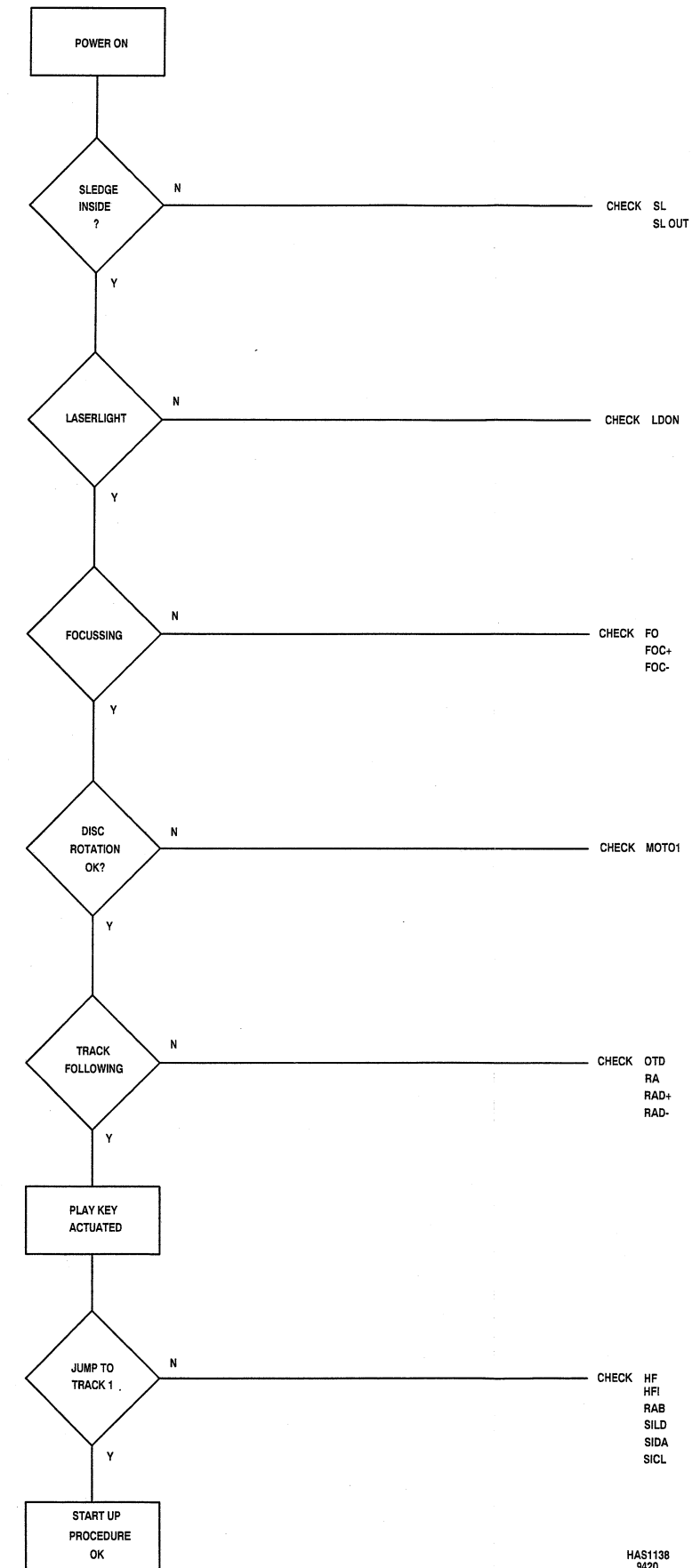
HEADPHONE CIRCUIT DIAGRAM

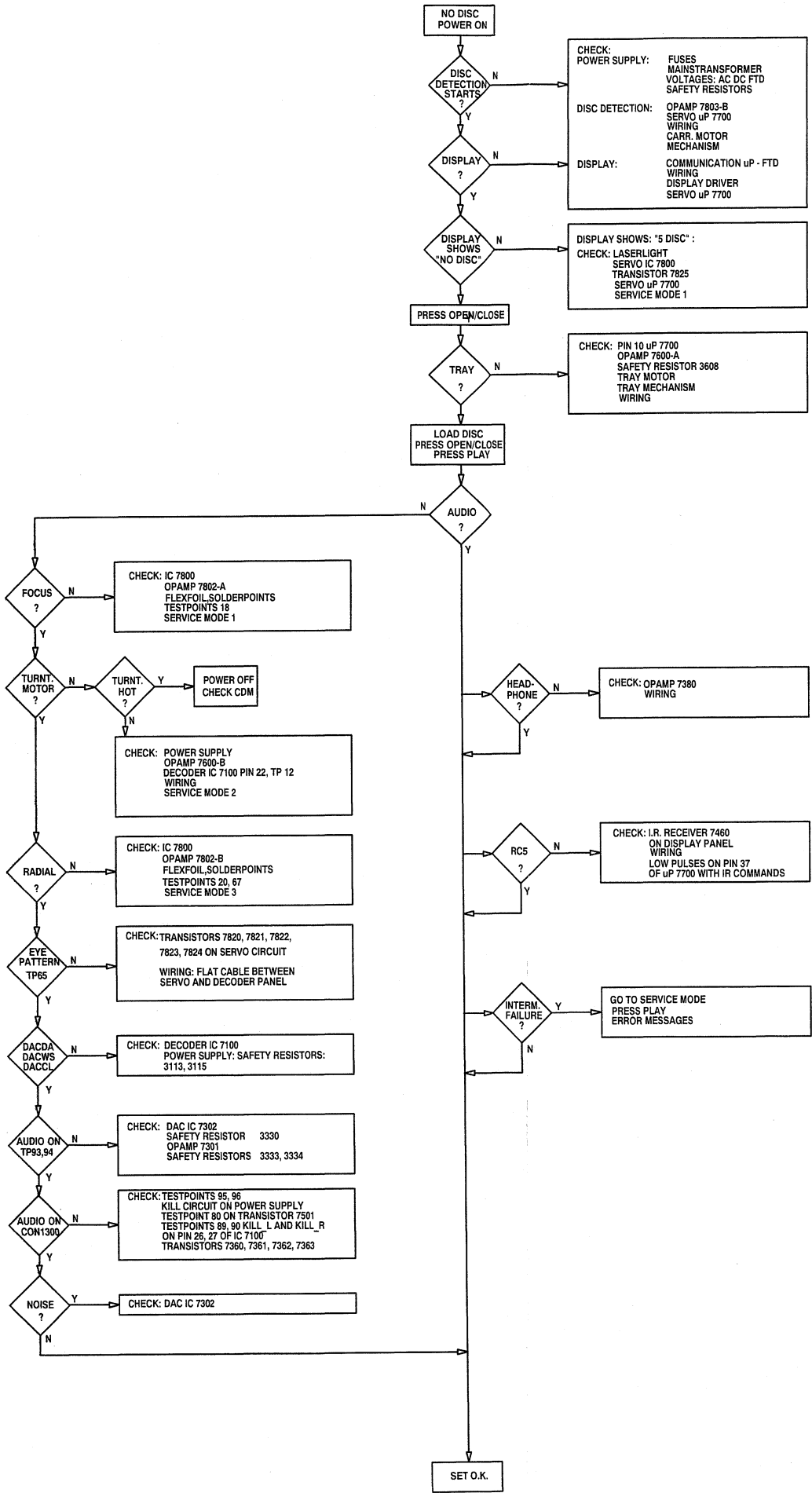
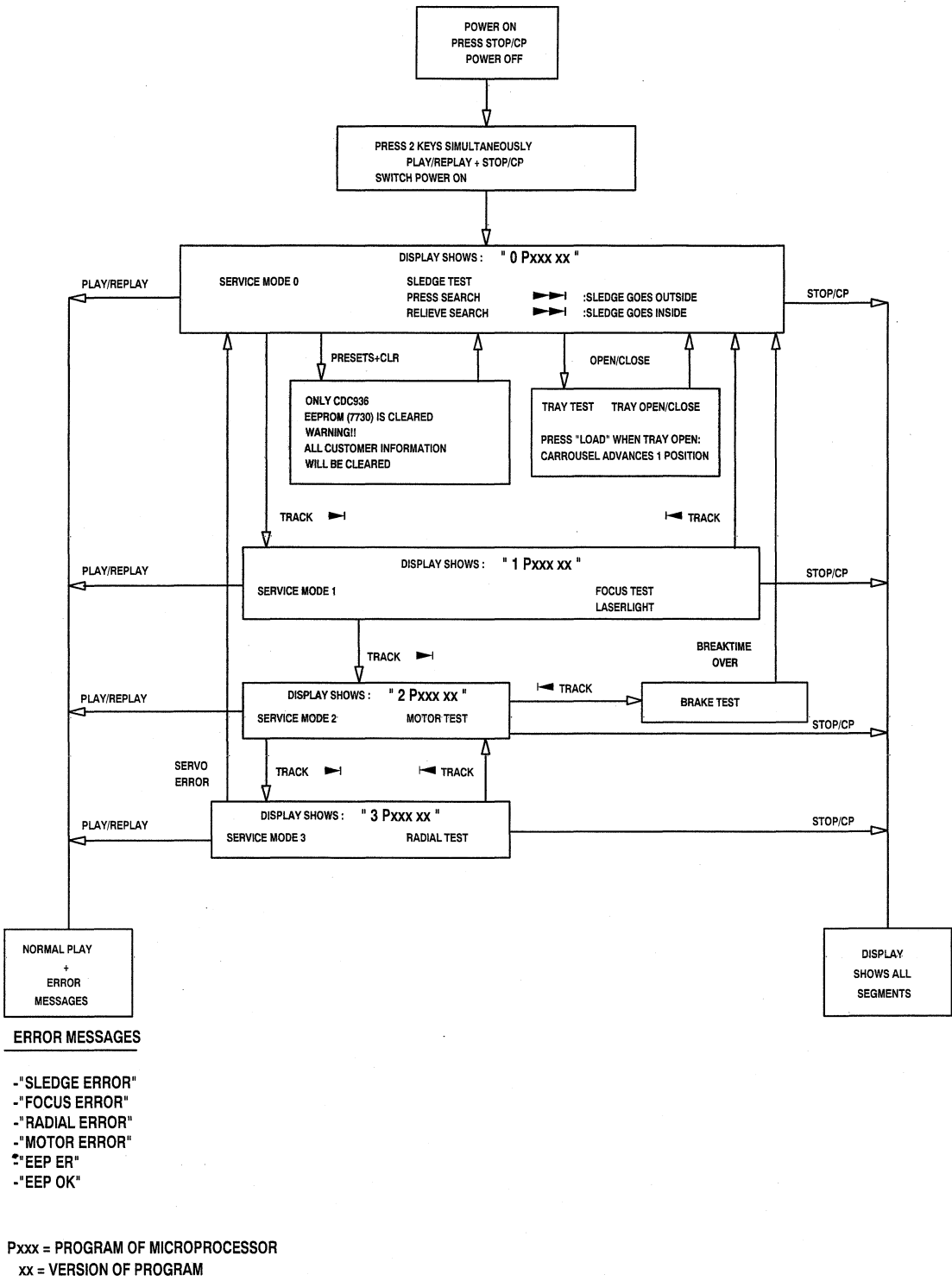


HEADPHONE PANEL



START UP PROCEDURE



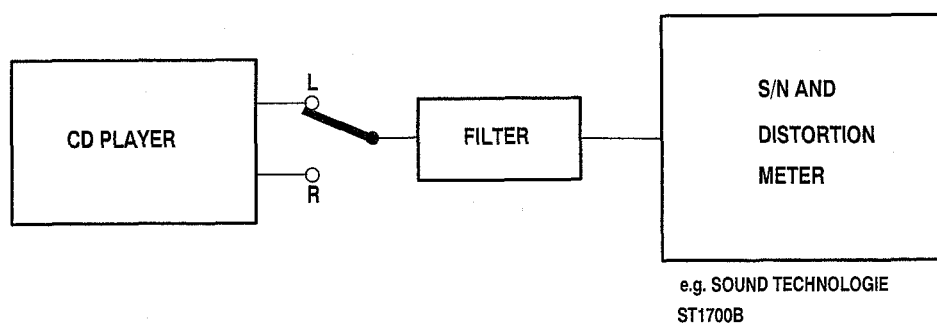


HAS1137
9419

SPECIFICATIONS MEASUREMENT

SIGNAL	AUDIO SIGNALS DISC 1	TESTPOINT	REMARKS
ANALOG OUT LEFT	TOTAL HARMONIC DISTORTION TRACKS 10 - 23	FILTER OUTPUT	SEE TECHNICAL DATA SEE DRAWING
ANALOG OUT RIGHT			
ANALOG OUT LEFT	SIGNAL-TO-NOISE RATIO TRACK 1 REFERENCE LEVEL TRACK 49	FILTER OUTPUT	SEE TECHNICAL DATA SEE DRAWING
ANALOG OUT RIGHT			

FILTER = 13TH ORDER FILTER 4822 395 30204



PARTS LIST LOADING

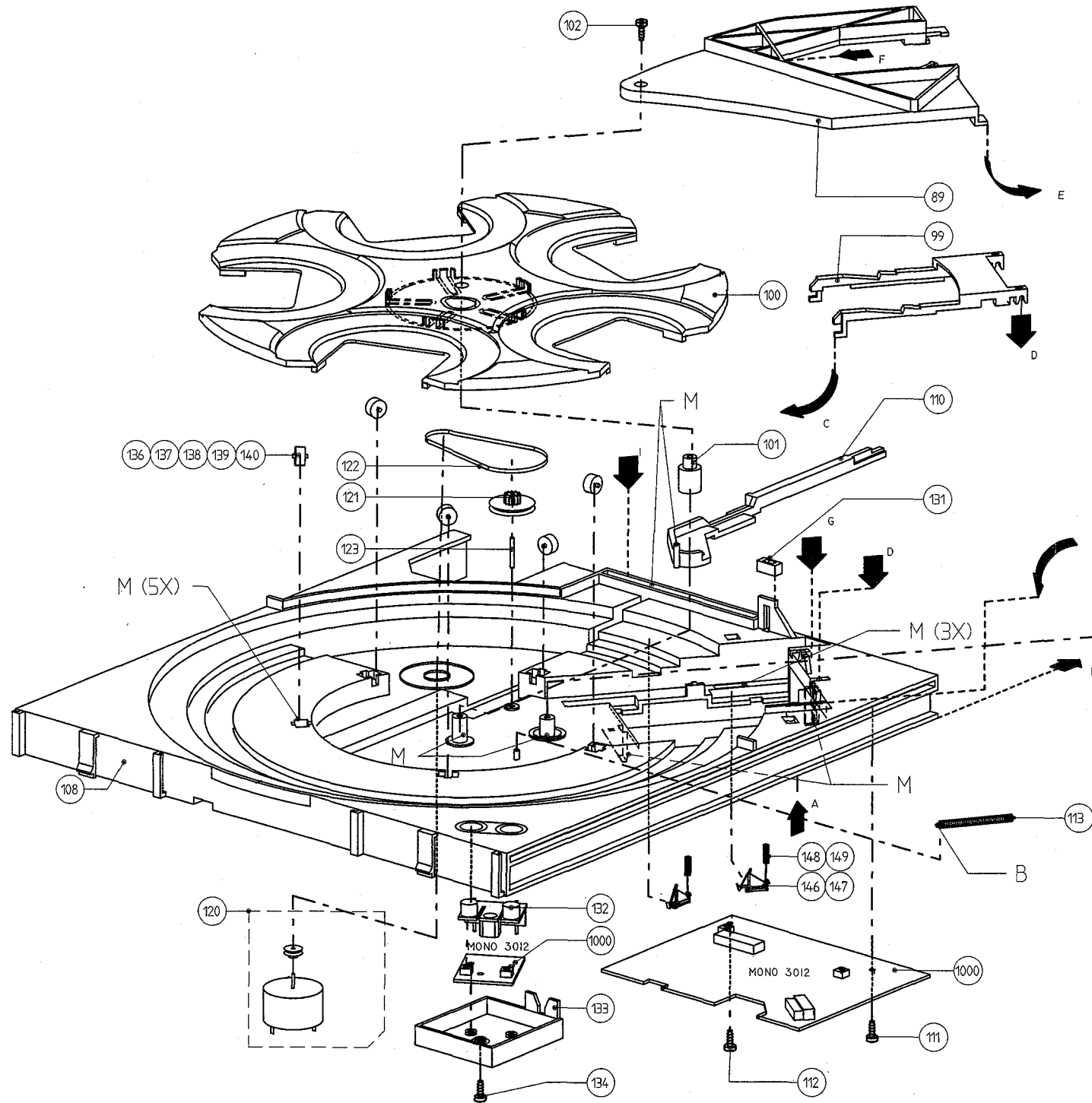
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90	4822 256 91912	PRESSURE RING HOLDER
91	4822 532 52386	PRESSURE RING
95	4822 522 33255	GEAR WHEEL
96	4822 535 40105	CRANCK
98	4822 691 30278	CDM 12.1 MECHANISM
99	4822 403 70598	CDM LOCKING BRACKET
100	4822 466 93129	ROTARY DISC 5 CD'S
101	4822 520 20758	BEARING
103	4822 401 11447	TRAY TUMBLER
104	4822 325 50215	SUSPENSION
105	4822 325 50215	SUSPENSION
106	4822 325 50215	SUSPENSION
107	4822 325 50215	SUSPENSION
108	4822 444 50685	TRAY ASSY
109	4822 532 51756	DAMPING GROMMET
110	4822 401 11444	BRACKET
113	4822 492 52313	TENSION SPRING
114	4822 256 91915	CDM SUPPORT
115	4822 466 93134	SLIDE STRIP
116	4822 522 33256	CAM WHEEL
119	4822 528 50335	MOTOR
120	4822 528 50335	MOTOR
121	4822 528 50334	PULLEY
122	4822 358 10115	BELT
128	4822 466 93132	GUIDE
129	4822 466 93132	GUIDE
130	4822 426 90109	FRAME ASSY
131	4822 466 93132	GUIDE
132	4822 403 70599	KEY UNIT
133	4822 466 93171	COVER PLATE
136	4822 528 70646	ROLLER
137	4822 528 70646	ROLLER
138	4822 528 70646	ROLLER
139	4822 528 70646	ROLLER
140	4822 528 70646	ROLLER
141	4822 466 93132	GUIDE
142	4822 466 93132	GUIDE
144	4822 528 50334	PULLEY
145	4822 358 10115	DRIVING BELT
146	4822 402 50291	LIFT TUMBLER
147	4822 402 50291	LIFT TUMBLER
148	4822 492 52123	COMPRESSION SPRING
149	4822 492 52123	COMPRESSION SPRING
150	4822 492 52123	COMPRESSION SPRING

Screws

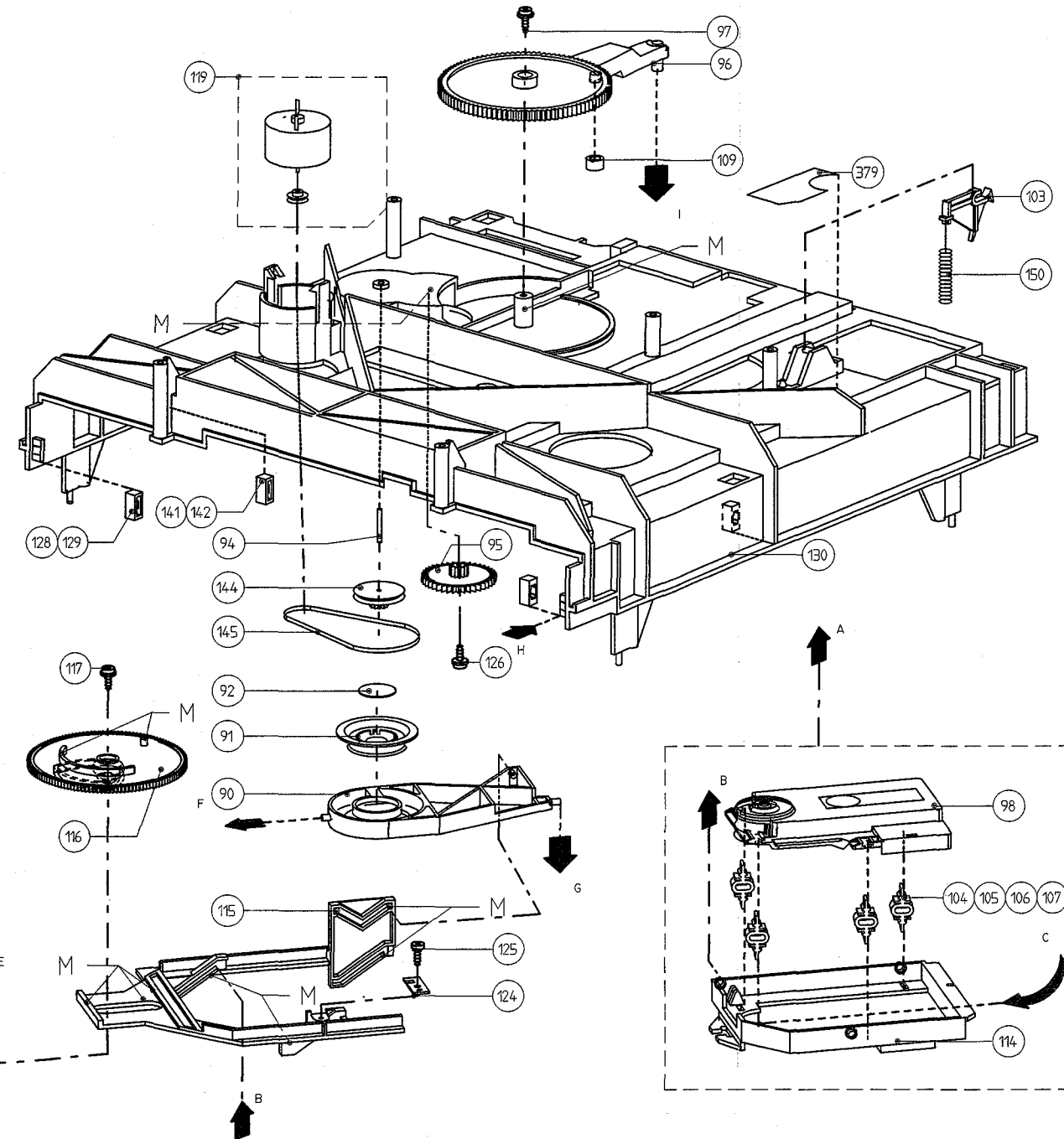
Plastite M3x6:	125
Plastite M3x10:	111,112
Plastite M3x10 + wascher:	97,126
Plastite M3x16:	102,134

EXPLODED VIEW
LOADING

28



28

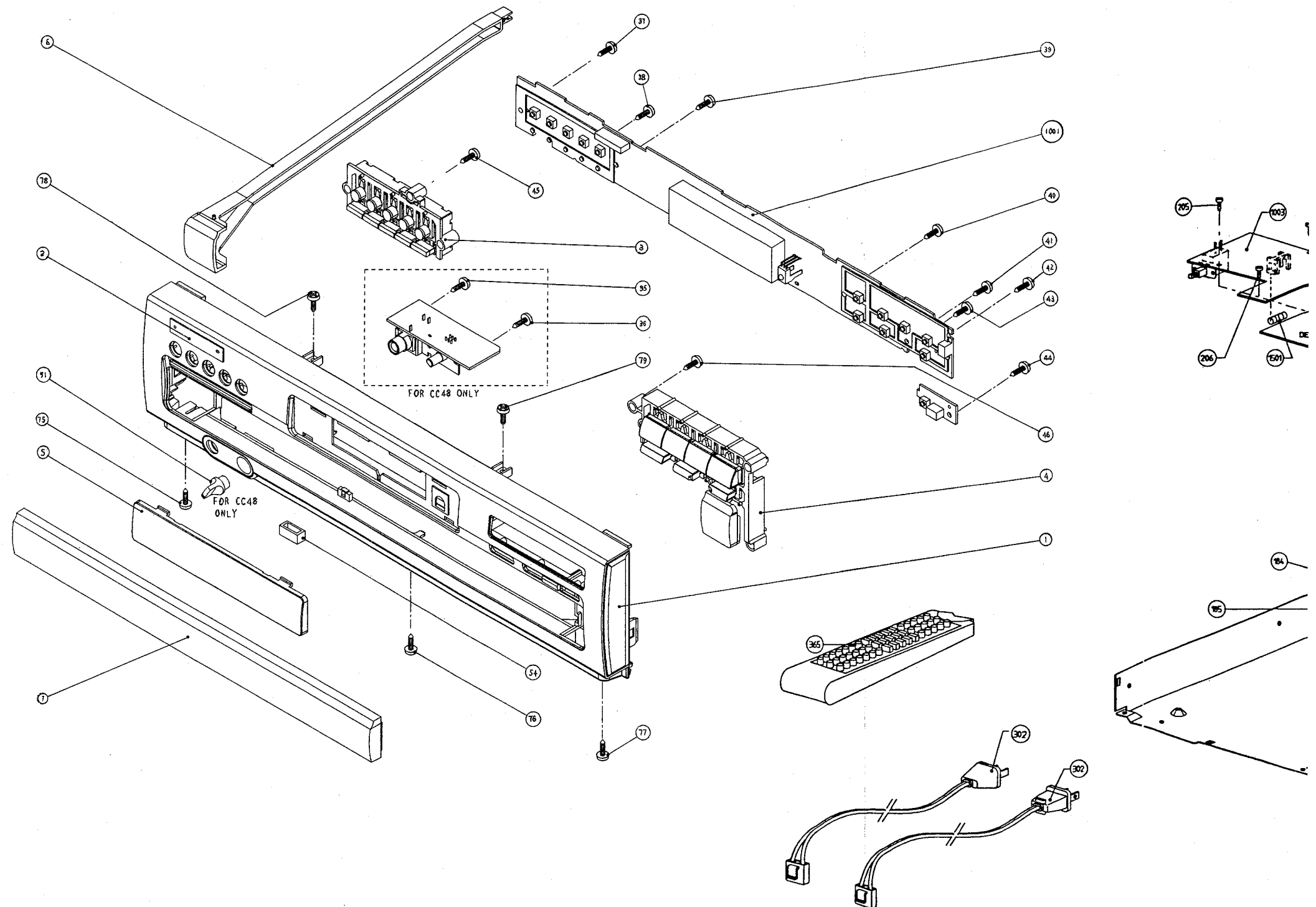


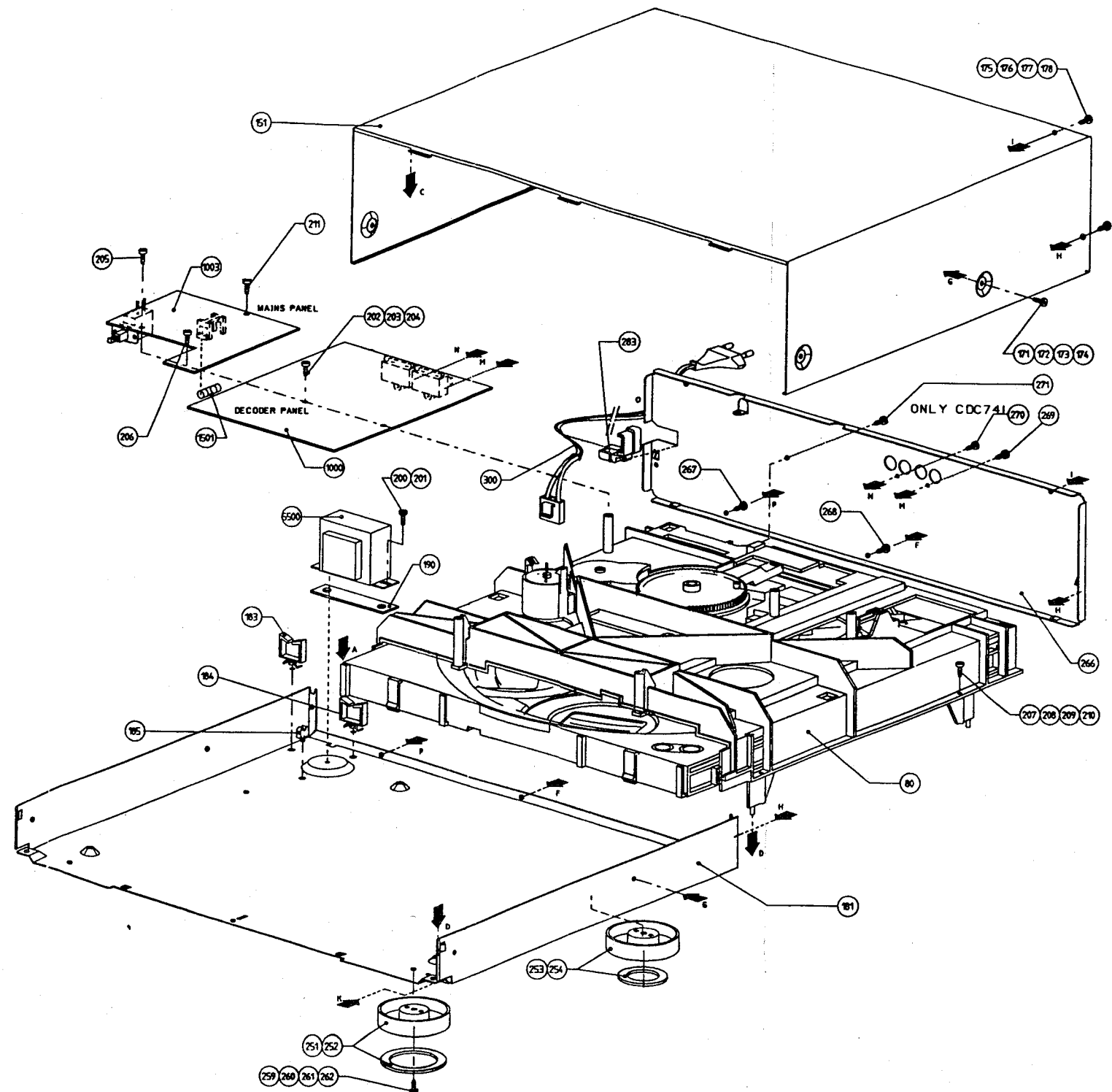
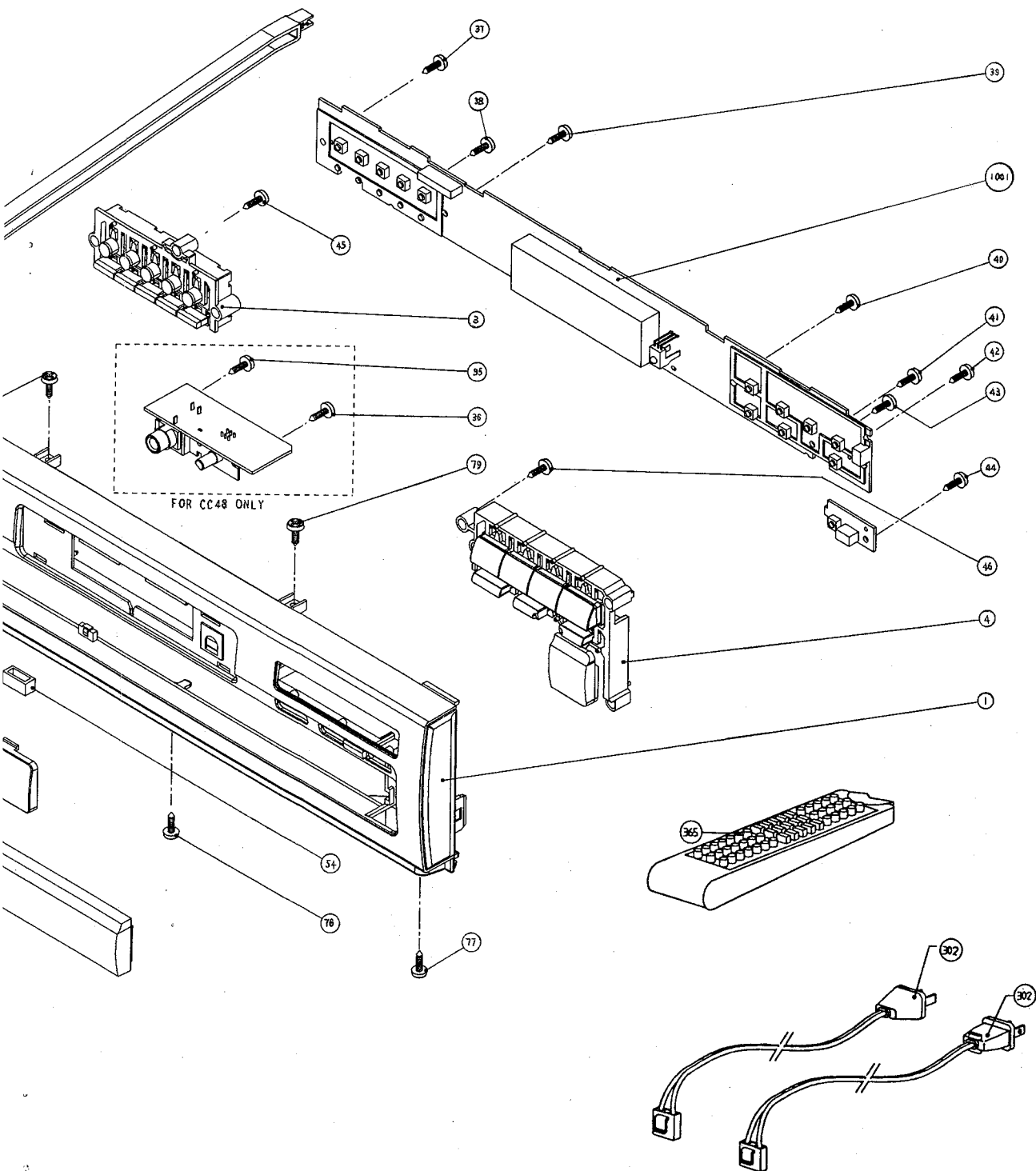
M: TO LUBRICATE WITH: 4822 390 20128 GREASE

HAS.1050
AHT31-92-1205

(VERS.:VERSION, U:U.S.A, F:JAPAN, K:FAR EAST, **:EUROPE)

POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
1	CC-38	4822 459 04605	CABINET FRONT(CC-38)	QP45904605
1	CC-48	4822 459 04645	CABINET FRONT(CC-48)	QP45904645
2		4822 454 11825	WORDMARK MTZ GOLD	QP45411825
3		4822 410 11193	BUTTON SET LEFT	QP41011193
4		4822 410 11194	BUTTON SET RIGHT	QP41011194
5		4822 450 10347	WINDOW DISPLAY	QP45010347
6		4822 402 10774	LEVER POWER PA/PR	QP40210774
7		4822 442 00979	COVER TRAY	QP44200979
25		4822 256 92151	HOLDER, PLASTIC	QP25692151
26		4822 255 40991	LEDHOLDER	QP25540991
51	CC-48	4822 410 11244	KNOB HEADPHONE	QP41011244
52	CC-48	4822 492 51374	SPRING	QP49251374
54		4822 466 93132	GUIDE	QP46693132
151		4822 444 60995	COVER	QP44460995
251		4822 462 42129	FOOT GOLD FRONT	QP46242129
252		4822 462 42129	FOOT GOLD FRONT	QP46242129
253		4822 462 42131	FOOT GOLD REAR	QP46242131
254		4822 462 42131	FOOT GOLD REAR	QP46242131
▲ 283		4822 532 60948	BUSH. AC CORD	QP53260948
▲ 302	/02	4822 321 10809	MAINS CORD EUROPE	QP32110809
▲ 302	U	4822 321 10849	MAINS CORD USA/CANADA	QP32110849
▲ 302	F	4822 321 10913	MAINS CORD JAPAN	QP32110913
384		4822 219 10296	RC6059/02	QP21910296
387	/02	4822 736 15447	IFU (74CC38/02B)	QP73615447
387	U	4822 736 15459	IFU (CC-38U/48U)	QP73615459
387	F	4822 736 15514	IFU (CC-48F)	QP73615514





9. ELECTRICAL PARTS LIST

(VERS.:VERSION, U:U.S.A, F:JAPAN, K:FAR EAST, **:EUROPE)

POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
			POWER SUPPLY PANEL MISCELLANEOUS	
▲ 1500		4822 276 13224	SDDLBI(G7440986M)	QP27613224
▲ 1501	/02	4822 071 58009	19372(80MA)	QP07158009
▲ 1501	U	4822 252 51167	19374C1(0.200)	QP25251167
▲ 1501	F	4822 071 52001	19372(200MA)	QP07152001
			CAPACITORS	
2500		4822 126 11585	22NF+80-20% Y5V 25V	QP12611585
2501		4822 122 33496	100NF10%X7R 63V	QP12233496
2502		4822 122 33496	100NF10%X7R 63V	QP12233496
2503		4822 126 11585	22NF+80-20% Y5V 25V	QP12611585
2504		4822 122 33496	100NF10%X7R 63V	QP12233496
2505		4822 126 11585	22NF+80-20% Y5V 25V	QP12611585
2506		4822 124 40784	3300UF 20% 16V	QP12440784
2507		4822 126 12882	100NF+80-20% 50V	QP12612882
2508		5322 124 22094	220UF20% 50V	QP12422094
2509		4822 124 41596	22UF20% 50V	QP12441596
2510		4822 123 14025	16V 2200U 20%	QP12314025
2544		4822 126 10454	3.3NF20% 400V	QP12610454
2560		4822 124 40849	330UF 20% 16V	QP12440849
			RESISTORS	
3560		4822 050 11002	1K00 1% 0.4W	QP05011002
			DIODES & IC	
6500		4822 130 31981	BZX79-B3V9	QP13031981
6501				
6504		5322 130 30684	1N4002RL	QP13030684
6505		4822 130 31981	BZX79-B3V9	QP13031981
6506		5322 130 32586	BZV85-C7V5	QP13032586
6507		5322 130 30684	1N4002RL	QP13030684
6508		5322 130 30684	1N4002RL	QP13030684
6560		5322 130 30684	1N4002RL	QP13030684
6561		5322 130 30684	1N4002RL	QP13030684
6562		4822 130 31981	BZX79-B3V9	QP13031981
			RESISTORS	
7500		4822 209 31257	MC79L24ACP	QP20931257
			SERVO PANEL MISCELLANEOUS	
1802		4822 242 73557	RESONATOR 8.46MHZ	QP24273557
1820		4822 276 13106	TACT 1P 20MA 15V	QP27613106
1821		4822 276 13106	TACT 1P 20MA 15V	QP27613106
1840		4822 276 13114	TACT 1P 20MA 15V	QP27613114
1841		4822 276 13114	TACT 1P 20MA 15V	QP27613114
			CAPACITORS	
2800		4822 126 10326	180PF 5% 63V	QP12610326
2801		4822 126 10326	180PF 5% 63V	QP12610326
2802		5322 122 31863	330PF 5% 50V	QP12231863
2803		5322 122 31865	1.5NF 10% 63V	QP12231865
2804		5322 116 80853	560PF 5% 63V	QP11680853
2805				
2810		4822 122 33575	220PF 5%NPO 50V	QP12233575
2811		4822 122 33496	100NF10%X7R 63V	QP12233496
2812		5322 124 21643	22UF 20% 40V	QP12421643
2813		5322 122 32654	22NF10%X7R 63V	QP12232654
2814		4822 122 33496	100NF10%X7R 63V	QP12233496
2815		4822 122 33496	100NF10%X7R 63V	QP12233496
2817		4822 126 10326	180PF 5% 63V	QP12610326
2818		4822 122 33496	100NF10%X7R 63V	QP12233496

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POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
2819		5322 124 41431	22UF 20% 35V	QP12441431
2820		5322 126 10465	3.9NF 10% 63V	QP12610465
2821		4822 122 33496	100NF10%X7R 63V	QP12233496
2822		5322 124 41431	22UF 20% 35V	QP12441431
2823		4822 122 33496	100NF10%X7R 63V	QP12233496
2824		4822 126 10326	180PF 5% 63V	QP12610326
2825		4822 122 32627	2.7NF 10% 50V	QP12232627
2826		4822 122 33496	100NF10%X7R 63V	QP12233496
2827		4822 122 33175	2.2NF 20% X7R 50V	QP12233175
2828		4822 122 33496	100NF10%X7R 63V	QP12233496
2829		5322 124 41431	22UF 20% 35V	QP12441431
2830		4822 122 33496	100NF10%X7R 63V	QP12233496
2831		4822 122 33496	100NF10%X7R 63V	QP12233496
2832		5322 124 41431	22UF 20% 35V	QP12441431
2833		4822 122 33496	100NF10%X7R 63V	QP12233496
2834		5322 124 41431	22UF 20% 35V	QP12441431
2835		4822 122 33496	100NF10%X7R 63V	QP12233496
2836		5322 122 32452	47PF 5%NPO 63V	QP12232452
2837		5322 122 32452	47PF 5%NPO 63V	QP12232452
2838		5322 122 32531	100PF 5% 50V	QP12232531
2839		5322 122 32965	18PF 5% NPO 50V	QP12232965
2840		4822 126 10326	180PF 5% 63V	QP12610326
2841		5322 124 21643	22UF 20% 40V	QP12421643
2842		5322 122 31863	330PF 5% 50V	QP12231863
2843		4822 126 10326	180PF 5% 63V	QP12610326
2856		4822 122 33496	100NF10%X7R 63V	QP12233496
2896		5322 124 41431	22UF 20% 35V	QP12441431
2897		4822 124 40433	47UF20% 25V	QP12440433
2898		4822 124 40433	47UF20% 25V	QP12440433
			RESISTORS	
3800		4822 116 52239	120K 5% 0.5W	QP11652239
3801		4822 116 52233	10K 5% 0.5W	QP11652233
3802		4822 116 52239	120K 5% 0.5W	QP11652239
3803		4822 116 52233	10K 5% 0.5W	QP11652233
3804		4822 116 52291	56K 5% 0.5W	QP11652291
3805				
3808		4822 116 52233	10K 5% 0.5W	QP11652233
▲ 3809		4822 052 10478	4R70 5% 0.33W	QP05210478
▲ 3810		4822 052 10478	4R70 5% 0.33W	QP05210478
3811		4822 051 20105	1M00 5% 0.1W	QP05120105
3812		4822 050 11002	1K00 1% 0.4W	QP05011002
3813		4822 050 11002	1K00 1% 0.4W	QP05011002
3814		4822 116 52233	10K 5% 0.5W	QP11652233
3815		4822 116 52175	100E 5% 0.5W	QP11652175
3816		4822 051 20103	10K 5% 0.1W	QP05120103
3817		4822 116 52244	15K 5% 0.5W	QP11652244
3818		4822 116 52244	15K 5% 0.5W	QP11652244
3819		4822 051 20395	3M9 5% 0.1W	QP05120395
3820		4822 051 20682	6K8 5% 0.1W	QP05120682
3821		4822 116 52283	4K7 5% 0.5W	QP11652283
3822		4822 116 52233	10K 5% 0.5W	QP11652233
3823		4822 051 20395	3M9 5% 0.1W	QP05120395
▲ 3824		4822 052 10229	22R00 5% 0.33W	QP05210229
3825		4822 116 52244	15K 5% 0.5W	QP11652244
3826		4822 116 52244	15K 5% 0.5W	QP11652244
3827		4822 051 20103	10K 5% 0.1W	QP05120103
3828		4822 116 52296	6K8 5% 0.5W	QP11652296
3829		4822 116 52233	10K 5% 0.5W	QP11652233
▲ 3830		4822 052 10229	22R00 5% 0.33W	QP05210229
3831		4822 051 20153	15K00 5% 0.1W	QP05120153
3832		4822 116 52244	15K 5% 0.5W	QP11652244
▲ 3833		4822 052 10478	4R70 5% 0.33W	QP05210478
3834		4822 117 10362	7K5 1% 0.1W	QP11710362
3835		4822 116 52296	6K8 5% 0.5W	QP11652296

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POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
3836		4822 116 52233	10K 5% 0.5W	QP11652233
▲ 3837		4822 052 10478	4R70 5% 0.33W	QP05210478
▲ 3838		4822 052 10229	22R00 5% 0.33W	QP05210229
3839		4822 116 52175	100E 5% 0.5W	QP11652175
3840		4822 116 52277	39K 5% 0.5W	QP11652277
3841		4822 050 11002	1K00 1% 0.4W	QP05011002
3842		4822 116 52175	100E 5% 0.5W	QP11652175
3843		4822 116 52249	1K8 5% 0.5W	QP11652249
3844		4822 116 52175	100E 5% 0.5W	QP11652175
3845		4822 051 20431	430R 5% 0.1W	QP05120431
3846		4822 051 20431	430R 5% 0.1W	QP05120431
3847		4822 051 20334	330K 5% 0.1W	QP05120334
3849		4822 051 20303	30K 5% 0.1W	QP05120303
3850		4822 050 11002	1K00 1% 0.4W	QP05011002
3851		4822 051 20362	3K6 5% 0.1W	QP05120362
3852		4822 116 52175	100E 5% 0.5W	QP11652175
3853		4822 116 52249	1K8 5% 0.5W	QP11652249
3854		4822 050 11002	1K00 1% 0.4W	QP05011002
3855		4822 051 20431	430R 5% 0.1W	QP05120431
4850		4822 116 52231	100PF 5% 50V	QP11652231
4851		4822 116 52238	12K 5% 0.5W	QP11652238
4852		4822 051 20123	12K 5% 0.1W	QP05120123
4853		4822 116 52238	12K 5% 0.5W	QP11652238
4854		4822 116 52238	12K 5% 0.5W	QP11652238
▲ 4855		4822 052 10229	22R00 5% 0.33W	QP05210229
▲ 4856		4822 052 10108	1R00 5% 0.33W	QP05210108
4857		4822 116 52284	47K 5% 0.5W	QP11652284
4858		4822 116 52284	47K 5% 0.5W	QP11652284
4890		4822 051 20271	270R 5% 0.1W	QP05120271
4891				
4893		4822 116 52217	270R 5% 0.5W	QP11652217
4894				
4899		4822 051 10008	0R00 5% 0.25W	QP05110008
			COILS	
5801		4822 157 53447	COIL 4U7	QP15753447
5802		4822 157 53447	COIL 4U7	QP15753447
			TRANSISTORS & IC'S	
7800		4822 209 31064	TDA1301T/N1	QP20931064
7801		4822 209 80817	L7805CV	QP20980817
7802		4822 209 72587	TCA0372DP2	QP20972587
7803		4822 209 72587	TCA0372DP2	QP20972587
7820		5322 130 41982	BF840	QP13041982
7821		5322 130 41982	BC848B	QP13041982
7822		5322 130 41983	BC858B	QP13041983
7823		5322 130 41982	BC848B	QP13041982
7824		5322 130 41982	BC848B	QP13041982
7825		4822 130 42675	BC818	QP13042675
			DECODER-DAC PANEL MISCELLANEOUS	
1010		4822 267 51094	18P F 1.25 FFC 0.3 B	QP26751094
1050		5322 242 73686	CST12.00MTW-TF01	QP24273686
1101	CC-38	4822 242 81865	X'TAL 33.8688MHZ	QP24281865
1101	CC-48	4822 242 81705	CINCH H 2P F BK B	QP24281705
1250	CC-48	4822 267 31729	CINCH H 2P F WHRD B	QP26731729
1300		4822 267 20452	CINCH H 2P F WHRD B	QP26720452
1540		4822 265 20723	B2P3-VH	QP26520723
1602		4822 276 13106	TACT 1P 20MA 15V	QP27613106
1750		4822 267 31817	ESI BUS SOCKET	QP26731817

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POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
			CAPACITORS	
2100		4822 122 33175	2.2NF 20% X7R 50V	QP12233175
2101		5322 122 32452	47PF 5%NPO 63V	QP12232452
2102		5322 122 32654	22NF10%X7R 63V	QP12232654</

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POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
3836		4822 116 52233	10K 5% 0.5W	QP11652233
3837		4822 052 10478	4R70 5% 0.33W	QP05210478
3838		4822 052 10229	22R00 5% 0.33W	QP05210229
3839		4822 116 52175	100E 5% 0.5W	QP11652175
3840		4822 116 52277	39K 5% 0.5W	QP11652277
3841		4822 050 11002	1K00 1% 0.4W	QP05011002
3842		4822 116 52175	100E 5% 0.5W	QP11652175
3843		4822 116 52249	1K8 5% 0.5W	QP11652249
3844		4822 116 52175	100E 5% 0.5W	QP11652175
3845		4822 051 20431	430R 5% 0.1W	QP05120431
3846		4822 051 20431	430R 5% 0.1W	QP05120431
3847		4822 051 20334	330K 5% 0.1W	QP05120334
3849		4822 051 20303	30K 5% 0.1W	QP05120303
3850		4822 050 11002	1K00 1% 0.4W	QP05011002
3851		4822 051 20362	3K6 5% 0.1W	QP05120362
3852		4822 116 52175	100E 5% 0.5W	QP11652175
3853		4822 116 52249	1K8 5% 0.5W	QP11652249
3854		4822 050 11002	1K00 1% 0.4W	QP05011002
3855		4822 051 20431	430R 5% 0.1W	QP05120431
4850		4822 116 52231	820R 5% 0.5W	QP11652231
4851		4822 116 52238	12K 5% 0.5W	QP11652238
4852		4822 051 20123	12K 5% 0.1W	QP05120123
4853		4822 116 52238	12K 5% 0.5W	QP11652238
4854		4822 116 52238	12K 5% 0.5W	QP11652238
4855		4822 052 10229	22R00 5% 0.33W	QP05210229
4856		4822 052 10108	1R00 5% 0.33W	QP05210108
4857		4822 116 52284	47K 5% 0.5W	QP11652284
4858		4822 116 52284	47K 5% 0.5W	QP11652284
4890		4822 051 20271	270R 5% 0.1W	QP05120271
4891				
4893		4822 116 52217	270R 5% 0.5W	QP11652217
4894				
4899		4822 051 10008	0R00 5% 0.25W	QP05110008
5801		4822 157 53447	COIL 4U7	QP15753447
5802		4822 157 53447	COIL 4U7	QP15753447
7800		4822 209 31064	TDA1301T/N1	QP20931064
7801		4822 209 80817	L7805CV	QP20980817
7802		4822 209 72587	TCA0372DP2	QP20972587
7803		4822 209 72587	TCA0372DP2	QP20972587
7820		5322 130 41982	BF840	QP13041982
7821		5322 130 41982	BC848B	QP13041982
7822		5322 130 41983	BC858B	QP13041983
7823		5322 130 41982	BC848B	QP13041982
7824		5322 130 41982	BC848B	QP13041982
7825		4822 130 42675	BC818	QP13042675
1010		4822 267 51094	18P F 1.25 FFC 0.3 B	QP26751094
1050		5322 242 73686	CST12.00MTW-TF01	QP24273686
1101	CC-38	4822 242 81865	CST16.93MXW0C3-TF01	QP24281865
1101	CC-48	4822 242 81705	X'TAL 33.8688MHZ	QP24281705
1250	CC-48	4822 267 31729	CINCH H 1P F BK B	QP26731729
1300		4822 267 20452	CINCH H 2P F WHRD B	QP26720452
1540		4822 265 20723	B2P3-VH	QP26520723
1602		4822 276 13106	TACT 1P 20MA 15V	QP27613106
1750		4822 267 31817	ESI BUS SOCKET	QP26731817

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POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
2100		4822 122 33175	2.2NF 20% X7R 50V	QP12233175
2101		5322 122 32452	47PF 5%NPO 63V	QP12232452
2102		5322 122 32654	22NF10%X7R 63V	QP12232654
2103		4822 122 33496	100NF10%X7R 63V	QP12233496
2105		5322 122 32531	100PF 5%NPO 50V	QP12232531
2110		4822 124 40433	47UF20% 25V	QP12440433
2111		5322 122 32654	22NF10%X7R 63V	QP12232654
2112	CC-48	5322 122 32448	10PF 5% 50V	QP12232448
2113		5322 122 32658	22PF 5% 50V	QP12232658
2114	CC-48	5322 122 34123	1NF10%X7R 50V	QP12234123
2115		4822 122 33496	100NF10%X7R 63V	QP12233496
2116		4822 124 40433	47UF20% 25V	QP12440433
2118	CC-48	5322 122 32452	47PF 5%NPO 63V	QP12232452
2140		4822 122 32542	47NF10%X7R 63V	QP12232542
2141		4822 122 33496	100NF10%X7R 63V	QP12233496
2142		5322 122 32452	47PF 5%NPO 63V	QP12232452
2143		5322 122 32654	22NF10%X7R 63V	QP12232654
2251	CC-48	4822 124 41579	10UF 20% 50V	QP12441579
2253	CC-48	4822 122 33496	100NF10%X7R 63V	QP12233496
2254	CC-48	5322 122 32654	22NF10%X7R 63V	QP12232654
2300	CC-38	4822 124 40433	47UF20% 25V	QP12440433
2301	CC-48	5322 122 32268	470PF 10% 50V	QP12232268
2302	CC-48	4822 124 40433	47UF20% 25V	QP12440433
2303	CC-48	4822 124 40433	47UF20% 25V	QP12440433
2304	CC-38	4822 122 33575	220PF 5%NPO 50V	QP12233575
2304	CC-48	5322 122 32661	56PF 5% 50V	QP12232661
2305	CC-38	4822 122 33575	220PF 5%NPO 50V	QP12233575
2305	CC-48	5322 122 32661	56PF 5% 50V	QP12232661
2306		4822 124 80865	10UF20% 25V	QP12480865
2307		4822 124 80865	10UF20% 25V	QP12480865
2308		4822 122 33575	220PF 5%NPO 50V	QP12233575
2309		4822 122 33575	220PF 5%NPO 50V	QP12233575
2310	CC-38	4822 122 33496	100NF10%X7R 63V	QP12233496
2311	CC-38	5322 122 33538	150PF 2%NPO 63V	QP12233538
2312	CC-38	5322 122 33538	150PF 2%NPO 63V	QP12233538
2313	CC-48	4822 124 40433	47UF20% 25V	QP12440433
2314	CC-48	5322 122 32268	470PF 10% 50V	QP12232268
2316	CC-38	4822 122 33496	100NF10%X7R 63V	QP12233496
2317				
2319		5322 122 32654	22NF10%X7R 63V	QP12232654
2330	CC-48	4822 122 33496	100NF10%X7R 63V	QP12233496
2331		4822 124 40433	47UF20% 25V	QP12440433
2332	CC-48	4822 122 33496	100NF10%X7R 63V	QP12233496
2333	CC-48	4822 124 40433	47UF20% 25V	QP12440433
2334	CC-48	4822 122 33496	100NF10%X7R 63V	QP12233496
2335	CC-48	4822 124 40433	47UF20% 25V	QP12440433
2336		4822 122 33496	100NF10%X7R 63V	QP12233496
2338		4822 126 11585	22NF+80-20% Y5V 25V	QP12611585
2339		4822 126 11585	22NF+80-20% Y5V 25V	QP12611585
2600		4822 122 33496	100NF10%X7R 63V	QP12233496
2601		5322 122 32654	22NF10%X7R 63V	QP12232654
2602		5322 122 32654	22NF10%X7R 63V	QP12232654
2701		5322 122 32654	22NF10%X7R 63V	QP12232654
2703		5322 122 32654	22NF10%X7R 63V	QP12232654
2707		5322 122 32654	22NF10%X7R 63V	QP12232654
2740		4822 124 40433	47UF20% 25V	QP12440433
2741		5322 122 32654	22NF10%X7R 63V	QP12232654
2742		5322 122 32654	22NF10%X7R 63V	QP12232654
3100		4822 117 11449	2K2 1% 0.1W	QP11711449
3101		4822 051 20223	22K00 5% 0.1W	QP05120223
3102		4822 116 52175	100E 5% 0.5W	QP11652175
3107		4822 051 20331	330R00 5% 0.1W	QP05120331

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POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
3108		4822 117 11503	220R 1% 0.1W	QP11711503
3111				
3113		4822 052 10338	3R30 5% 0.33W	QP05210338
3114		4822 051 20105	1M00 5% 0.1W	QP05120105
3115		4822 052 10338	3R30 5% 0.33W	QP05210338
3116	CC-48	4822 051 20101	100R00 5% 0.1W	QP05120101
3117		4822 051 20008	0R00 JUMP. (0805)	QP05120008
3120	CC-38	4822 051 20562	5K60 5% 0.1W	QP05120562
3120	CC-48	4822 117 11449	2K2 1% 0.1W	QP11711449
3140				
3142		4822 051 20333	33K00 5% 0.1W	QP05120333
3143		4822 116 52234	100K 5% 0.5W	QP11652234
3144		4822 116 52234	100K 5% 0.5W	QP11652234
3145		4822 052 10229	22R00 5% 0.33W	QP05210229
3146		4822 051 20101	100R00 5% 0.1W	QP05120101
3147		4822 116 52283	4K7 5% 0.5W	QP11652283
3252	CC-48	4822 051 20689	68R00 5% 0.1W	QP05120689
3300	CC-38	4822 117 10965	18K 1% 0.1W	QP11710965
3301	CC-38	4822 116 52244	15K 5% 0.5W	QP11652244
3302	CC-38	4822 051 20008	0R00 JUMP. (0805)	QP05120008
3302	CC-48	4822 117 10833	10K 1% 0.1W	QP11710833
3303	CC-38	4822 051 20008	0R00 JUMP. (0805)	QP05120008
3303	CC-48	4822 117 10833	10K 1% 0.1W	QP11710833
3304	CC-38	4822 051 20392	3K90 5% 0.1W	QP05120392
3304	CC-48	4822 051 20153	15K00 5% 0.1W	QP05120153
3305	CC-38	4822 051 20392	3K90 5% 0.1W	QP05120392
3305	CC-48	4822 051 20153	15K00 5% 0.1W	QP05120153
3306		4822 051 20223	22K00 5% 0.1W	QP05120223
3307		4822 051 20223	22K00 5% 0.1W	QP05120223
3308		4822 051 10102	1K00 2% 0.25W	QP05110102
3309		4822 051 10102	1K00 2% 0.25W	QP05110102
3310		4822 051 20008	0R00 JUMP. (0805)	QP05120008
3330		4822 052 10338	3R30 5% 0.33W	QP05210338
3331	CC-48	4822 052 10338	3R30 5% 0.33W	QP05210338
3332	CC-48	4822 052 10338	3R30 5% 0.33W	QP05210338
3333		4822 052 10478	4R70 5% 0.33W	QP05210478
3334		4822 052 10478	4R70 5% 0.33W	QP05210478
3360		4822 116 83884	47K 5% 0.5W	QP11683884
3361		4822 116 83884	47K 5% 0.5W	QP11683884
3362		4822 116 83874	220K 5% 0.5W	QP11683874
3363		4822 051 20224	220K00 5% 0.1W	QP05120224
3364		4822 117 11449	2K2 1% 0.1W	QP11711449
3365		4822 117 11449	2K2 1% 0.1W	QP11711449
3366		4822 116 52256	2K2 5% 0.5W	QP11652256
3367		4822 116 52256	2K2 5% 0.5W	QP11652256
3368		4822 117 10833	10K 1% 0.1W	QP11710833
3369		4822 117 10833	10K 1% 0.1W	QP11710833
3376		4822 051 10102	1K00 2% 0.25W	QP05110102
3377		4822 051 10102	1K00 2% 0.25W	QP05110102
3500		4822 117 10353	150R 1% 0.1W	QP11710353
3501		4822 051 10102	1K00 2% 0.25W	QP05110102
3502		4822 051 20223	22K00 5% 0.1W	QP05120223
3503		4822 051 20223	22K00 5% 0.1W	QP05120223
3504		4822 051 20223	22K00 5% 0.1W	QP05120223
3505		4822 051 20472	4K70 5% 0.1W	QP05120472
3508		4822 052 10108	1R00 5% 0.33W	QP05210108
3601		4822 117 11383	12K 1% 0.1W	QP11711383

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POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
7301	CC-38	4822 209 83274	NJM4560D	QP20983274
7302		4822 209 33164	TDA1545AT/N2	QP20933164
7360		5322 130 42012	BC858A	QP13042012
7361		5322 130 42012	BC858A	QP13042012
7362		4822 130 42804	BC817-25	QP13042804
7365				
7500		5322 130 42012	BC858A	QP13042012
7501		5322 130 42012	BC858A	QP13042012
7502		4822 209 80817	L7805CV	QP20980817
7600		4822 209 72587	TCA0372DP2	QP20972587
7601		4822 130 83031	BPW85A	QP13083031
7700		4822 209 15675	MC68HC11AR32	QP20915675
7740		5322 130 42012	BC858A	QP13042012
7741		4822 130 61207	BC848	QP13061207
7742		4822 130 61207	BC848	QP13061207
DISPLAY PANEL MISCELLANEOUS				
1400		4822 130 91463	8-BT-172GK	QP13091463
1402		4822 242 72527	CST4.00MGW-TF01	QP24272527
1420		4822 276 13114	TACT 1P 20MA 15V	QP27613114
1437				
CAPACITORS				
2402	5322 124 21643	22UF 20% 40V	QP12421643	
2405	4822 126 11585	22NF+80-20% Y5V 25V	QP12611585	
2460	4822 126 12785	47NF Y5VTUB 50V	QP12612785	
2461	4822 126 12339	2.2NF10% Y5R	QP12612339	
RESISTORS				
3400		4822 116 83874	220K 5% 0.5W	QP11683874
3401		4822 116 52257	22K 5% 0.5W	QP11652257
3404				
3406		4822 116 52257	22K 5% 0.5W	QP11652257
▲ 3407		4822 052 10108	1R00 5% 0.33W	QP05210108
▲ 3408		4822 116 83916	3R9 5% 0.33W	QP11683916
▲ 3409		4822 052 10688	6R80 5% 0.33W	QP05210688
3411		4822 116 83864	10K 5% 0.5W	QP11683864
3412		4822 050 11002	1K00 1% 0.4W	QP05011002
3413		4822 116 52175	100E 5% 0.5W	QP11652175
DIODES & IC'S				
6420		4822 130 30621	1N4148	QP13030621
6424				
7400	4822 209 30249	TMP47C212AN-3312	QP20930249	
7461	4822 130 10165	GP1U28XP	QP13010165	
HEADPHONE PANEL [CC-48]				
1371	CC-48	4822 267 31453	PHONE H 1P F 6.3 ST B	QP26731453
2380	CC-48	4822 126 11585	22NF+80-20% Y5V 25V	QP12611585
2381	CC-48	4822 121 51387	10NF20% 16V	QP12151387
2382	CC-48	4822 121 51387	10NF20% 16V	QP12151387
2383	CC-48	4822 126 12882	100NF+80-20% 50V	QP12612882
3380	CC-48	4822 101 21199	10KX2 20% 0.025W	QP10121199
3381	CC-48	4822 116 83864	10K 5% 0.5W	QP11683864
3382	CC-48	4822 116 83864	10K 5% 0.5W	QP11683864
3383	CC-48	4822 116 52244	15K 5% 0.5W	QP11652244
3384	CC-48	4822 116 52244	15K 5% 0.5W	QP11652244
3385	CC-48	4822 116 52206	120E 5% 0.5W	QP11652206

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POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
3386	CC-48	4822 116 52206	120E 5% 0.5W	QP11652206
7380	CC-48	4822 209 82362	NJM4556D	QP20982362
MAINS VOLTAGE				
▲ 5500	/02	4822 146 31373	MAINS TRANSF EUROPE	QP14631373
▲ 5500	U	4822 146 31374	MAINS TRANSF USA/CANADA	QP14631374
▲ 5500	F	4822 146 10512	MAINS TRANSF JAPAN	QP14610512

NOTE ON SAFETY :

Symbol ▲ Fire or electrical shock hazard. Only original parts should be used to replaced any part marked with symbol ▲ . Any other component substitution (other than original type), may increase risk of fire or electrical shock hazard.

安全上の注意 :

▲ がついている部品は、安全上重要な部品です。必ず指定されている部品番号の部品を使用して下さい。